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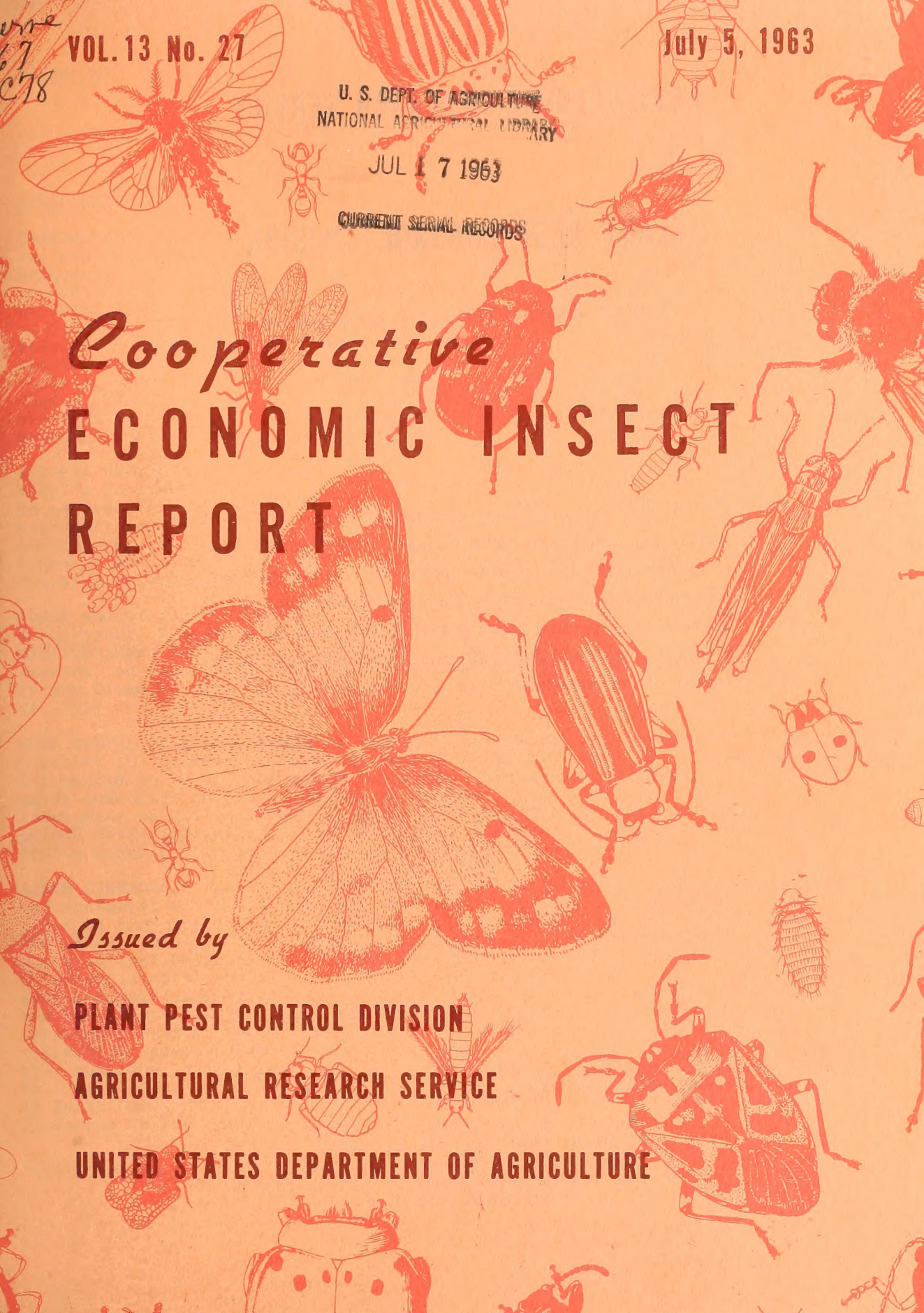
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Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearinghouse and does not assume responsibility for accuracy of the material.

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Survey and Detection Operations
Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

GRASSHOPPERS continue damaging in parts of Nevada, Utah and Texas; variable in the Dakotas, Nebraska, Kansas and Oklahoma; and general increase noted in Minnesota and Wisconsin. (pp. 741-742). CEREAL LEAF BEETLE adults causing severe injury in Michigan where numbers are high. Several new counties reported infested. (p. 743). CORN ROOTWORMS causing damage to corn in areas of Nebraska, South Dakota and Missouri; root pruning severe in some northwest Missouri fields. (p. 744). WHEAT STEM MAGGOT heavy in Edmunds County, South Dakota; damage evident in Oakes area of Dickey County, North Dakota; and reported to be more prevalent than usual in areas of Minnesota. (p. 744). CHINCH BUG caused considerable damage to sorghum in Sumner County, Kansas, and moderate to heavy populations migrating from wheat stubble to small corn and grain in north central Missouri. (p. 745).

ALFALFA WEEVIL a very serious problem in Pennsylvania and causing damage to alfalfa in areas of Asotin and Whitman Counties, Washington. Damage severe in southeastern Albany County, New York. (p. 746). MEXICAN BEAN BEETLE unusually numerous on soybeans in several northeastern Virginia counties; controls applied. PEA APHID beginning to build up again on alfalfa in several areas of the country. (p. 747). SPOTTED ALFALFA APHID numerous in portions of southern Kansas. (p. 748).

APPLE MAGGOT adults reported emerging and active in New Jersey, New York, Connecticut, Massachusetts, Michigan, Wisconsin and Minnesota. (p. 750). MEDITERRANEAN FRUIT FLY collected at 3 locations in Miami, Dade County, Florida, on June 19, 20 and 21; and MEXICAN FRUIT FLY (single male) trapped in San Diego County, California, (adjacent to Tijuana, Mexico) on July 1. (p. 752)

BOLL WEEVIL continues light on cotton in most areas; first-generation emergence expected to increase infestation rate in southeast. (p. 757). BOLLWORMS increasing in Texas, but generally light in other areas; however, constitute major immediate threat to cotton in Georgia. (pp. 757-758). LYGUS BUGS increasing on cotton in all sections of Arizona and in parts of California. SPIDER MITES appearing earlier than usual in North Carolina, and some cotton fields required controls in California and Arizona. (p. 759).

LARCH CASEBEARER causing serious defoliation of tamarack in northeast Aitkin and southwest St. Louis Counties, Minnesota. (p. 760). SPITTLEBUGS damaging pines in areas of Michigan, Minnesota and Wisconsin. (pp. 760-761). ELM LEAF BEETLE continues to cause severe defoliation of elms in localized portions of south central Oklahoma, and damage reported to elms in Arizona, Nevada, Idaho, Colorado, Alabama and Maryland; appearing in Vermont. (p. 761). JAPANESE BEETLE adults appearing in areas of North Carolina, Virginia, Maryland, New Jersey, New York, Rhode Island, Ohio, Michigan and Indiana; troublesome in several Maryland counties. ROSE CHAFER abundant in Vermont; common in Rhode Island; numerous in parts of New York; injury heavy in 3 Michigan counties; and unusually numerous, with serious injury to ornamentals in several Wisconsin counties. (p. 763). Populations of a WEEVIL (*Ochyromera ligustri*) at peak levels June 24 in North Carolina. (See CEIR 12(23):607-608; this is a relatively new pest of ligustrum in the United States). (p. 763).

(Continued on following page)

FACE FLY building up in Indiana, Ohio and Maryland, and prevalent in Vermont. (p. 767). LARDER BEETLE unusually numerous in Wisconsin, Michigan and South Dakota. (p. 768).

DETECTION

New county records are SOUTHWESTERN CORN BORER in Forrest and Covich Counties, Mississippi (p. 742); CEREAL LEAF BEETLE in Jackson County, Michigan; Carroll, De Kalb, Huntington, Wabash, White and Whitley Counties, Indiana; and Fulton, Defiance and Allen Counties, Ohio (p. 743); ALFALFA WEEVIL in Crawford County, Pennsylvania (last county in State), and Phillips County, Arkansas (p. 746); WHITE-FRINGED BEETLES in Stewart and Evans Counties, Georgia (p. 769); and IMPORTED FIRE ANT in Colorado County, Texas, and Baldwin County, Georgia (p. 770).

CORRECTIONS

See page 749.

SPECIAL REPORTS

Status of the Screw-worm in the Southwest. (p. 766).

Hawaiian Insect Notes. (p. 773).

Field Method for Separating the Cereal Leaf Beetle (*Oulema melanopa* (L.)) from Similar-appearing Species of *Lema* in the United States. (p. 774).

Reports in this issue are for week ending June 28, unless otherwise indicated.

WEATHER BUREAU 30-DAY OUTLOOK

July 1963

The Weather Bureau's 30-day outlook for July calls for temperatures to average above seasonal normals in most of the eastern two-thirds of the Nation, except for near to below normal in North Atlantic, South Atlantic and Gulf States. Over the Far West generally below normal temperatures are anticipated. Rainfall is expected to be subnormal over the Great Lakes, central Plains and middle Mississippi Valley. Above normal amounts are predicted for the Southeast and Northwest, and near normal in areas not specified.

WEATHER OF THE WEEK ENDING JULY 1

A large high pressure area centered over Ohio provided warm sunny weather to most of the eastern part of the Nation during the first half of the week. Light rain showers fell over the Carolinas, Georgia and the Florida Peninsula. Hot humid air flowed northward on the western side of the mound of high pressure. This air brought more than 2 inches of rain to most of southeastern Nebraska Sunday night and early Monday morning. Fourteen inches fell at Garrison, Nebraska, June 23-24, washing out 200 bridges and causing \$10 million damage in the vicinity. (continued on page 773)

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - UTAH - Numerous on rangeland and in planted grass fields in several areas of Kane County; generally moderate about farms and communities. (Knowlton, June 24). Outbreaks have been severe over more than 10,000 acres in Parowan area and 7,000 acres in Paragonah, plus a large outbreak in Summit area of Iron County. (Knowlton, Sjoblom). Outbreaks in Juab County continue moderate to severe over large areas. (Knowlton, Esplin). Causing injury in some areas of Millard County; extremely numerous over much of eastern part. (Knowlton, Rickenbach). IDAHO - First and second instars of Melanoplus spp. ranged up to 5 per sweep in field of alfalfa 5 miles east of Spaulding. (Portman). Undetermined species averaged 2-3 per sweep in Black Canyon area, Canyon County, on alfalfa. (Bechtolt). NEVADA - Third instars of Melanoplus sanguinipes, Oedaleonotus enigma and others averaged 30 per square yard over 7-mile area in valley of Selenite Range, western Pershing County. (Funk). Second to fourth instars of O. enigma reported to average 30 per square yard in unspecified area in Sun Valley, Washoe County. (Hampton). NEW MEXICO - Grasshoppers averaged 5-6 per square yard around Caprock and north of Tatum, Lea County. Spotted infestations, 8-10 per square yard, north of Tucumcari, Lea County. Buildup also reported from northern Rio Arriba County. (N.M. Coop. Rpt.). TEXAS - Several species causing significant damage to growing crops in small areas of central, south central, and southern sections. (Tex. Coop. Rpt.). Counts in northwest counties of Lubbock, Floyd, Scurry, Kent, Hale, Armstrong, Carson, Castro, Parmer, Swisher, Bailey and Lamb Counties generally less than 5 per square yard. Counts in few areas of Lubbock and Kent Counties as high as 12-14 per square yard. (Tex. Coop. Rpt.; Neilson, Duncan, Hatchett, Whitaker).

OKLAHOMA - Grasshopper populations in Rogers Mills County remain below threatening level. Rangeland counts in Beckham County showed 10-15 nymphs per square yard. Dominant species Melanoplus bivittatus, Phlibostroma quadrimaculatum and Aulocara elliotti. Counts in areas of Carter and Murray Counties showed 4-18 per square yard with isolated spots up to 30 per square yard. M. bivittatus, Mermiria maculipennis and Ageneotettix deorum species present. Crop margin populations in Carter County averaged 6-15 per square yard; rangeland counts in Pontotoc County 2-5 per square yard. (Okla. Coop. Sur.). KANSAS - Counts of Melanoplus spp. in field margins in south central and southeast generally ranged 0-5 per square yard. Highest counts 20-25 M. bivittatus (fourth and fifth instars) per square yard in border of alfalfa field in Wilson County, southeast. (Peters). COLORADO - Mermiria sp. 1-2 per square yard on pasture land in Logan and Washington Counties. (Jenkins). NEBRASKA - Cropland infestations in south and southwest ranged 4-9 per square yard in the field. Margin counts 5-30 per square yard. Dominant species Melanoplus femurrubrum, third instar, and M. differentialis, fourth instar. Light populations present in pasture and rangeland in same area, ranging from less than one in Harlan County to 30-50 per square yard in Webster County. Amphitornus coloradus, Ageneotettix deorum, Phlibostroma quadrimaculatum and Phoetaliotes nebrascensis species present. (Bell, Hauke, Bergman). SOUTH DAKOTA - Situation not changed significantly. (Hintz). NORTH DAKOTA - Nymphal survey conducted in Dickey, McIntosh, Emmons and Logan Counties. Counts ranged 0-30 in margins. Most of area had 2-3 per square yard. An area north of Hazelton showed 25-30 per square yard, and 15-20 seen in Lehr area. M. bivittatus and M. sanguinipes dominant species. Development of M. bivittatus second through fifth instar and M. sanguinipes second through fourth instar. (Olson). MINNESOTA - General hatch of M. differentialis and M. femurrubrum noted in Anoka and Sherburne Counties; counts 10-60 first and second instars per square yard in recently cut alfalfa and in soil bank land. In Winona and Olmsted Counties, 3-4 M. femurrubrum per square yard found in field margins; second to fifth instars. Counts of second and third instars in Pope County field ranged 15-20 per square yard in margin. Third instar of M. bivittatus 4 per square yard in field of sweetclover in Marshall County. (Minn. Ins. Rpt., June 28). Light hatch noted in scattered fields in southeast and south central districts. (Minn. Ins. Rpt., June 21). WISCONSIN - Considerable numbers already present in certain alfalfa fields in scattered areas. Several fields in

La Crosse County had excess of 50 per sweep. First to third instar M. femurrubrum and second to fourth instar M. differentialis numbered up to 60 per square yard in second-growth and thin first-growth alfalfa in another area of La Crosse County. M. bivittatus becoming full grown in Adams County. Nymphs, probably M. femurrubrum, becoming quite noticeable in Waushara County although no significant buildup evident in southwest corner of State where high populations anticipated. (Wis. Ins. Sur.). ILLINOIS - Varied 30-260 (averaged 118) per 100 sweeps in grass and 0-170 (averaged 35) per 100 sweeps in oats in Will and Cook Counties. In west-southwest district, counts per 100 sweeps in clover and alfalfa averaged 1,075 (ranged 200-3,500); all instars as well as occasional adults present. (Ill. Ins. Rpt.).

EUROPEAN CORN BORER (Ostrinia nubilalis) - NORTH DAKOTA - Emergence 84 percent in Cayuga area, Sargent County; no eggs observed. (N.D. Ins. Sur.). SOUTH DAKOTA - Preliminary egg survey in northeast showed average of 3 egg masses per 25 plants; average plant height 20 inches with leaves extended. (Hintz). MINNESOTA - Egg masses and first-stage larvae observed on field corn in southern half of State. Potential of greatest infestations in southwest and west central districts. (Minn. Ins. Rpt.). WISCONSIN - Percent leaf feeding by larvae, first and second stages, on corn 24-40 inches extended height by county was 14 in Iowa, 2 in Lafayette, 8 in Grant, 16 in Crawford, 1 in Vernon, 9 in La Crosse, 17 in Trempealeau and 36 in Sauk (Spring Green area). (Wis. Ins. Sur.). ILLINOIS - In general, all eggs hatched south of U.S. Highway 6. In west district, percent of plants infested ranged 4-72 (average 40.7), with average of 1.6 larvae per plant of which 28.6 percent first stage, 50 percent second stage and 21.4 percent third stage; corn examined in west district averaged 66.3 inches extended height. In Kankakee County, east district, 10-20 percent of plants infested with 1 larva per plant. In Will County, northeast district, 0-20 unhatched egg masses per 100 plants; 0-10 percent of plants infested, with 1 first-stage larva per infested plant. Practically all larvae in fifth stage in sweet corn in East St. Louis area. (Ill. Ins. Rpt.). MISSOURI - Leaf-feeding damage in central and northern areas ranged 0-98 percent. Beginning to enter stalks in central and northern areas; 12 percent of borers entered stalks in one northwest area field. (Munson, Thomas, Wood). MICHIGAN - Egg masses quite easily found in Wayne, Monroe and Oakland Counties; larval feeding on leaves evident in Ingham County. (Proctor). OHIO - Egg masses and larval feeding observed in few corn fields in southwest. (Lyon). MARYLAND - Larval infestations generally light to moderate but increasing on field and sweet corn in all sections. Several heavy infestations in garden sweet corn reported from Queen Annes and Frederick Counties. (U. Md., Ent. Dept.). DELAWARE - Infestations in corn 4, 10 and 20 percent in New Castle, Kent and Sussex Counties, respectively; larval development varies second to fifth instar. (Burbutis). NEW YORK - Moths continued light to moderate in trap, cage and field in Dutchess County; egg masses in all stages of incubation noted and first 2 larval stages found in whorls. Light hatch noted in sweet corn in early green tassel stage in Ulster County. Egg masses ranged 2-4 per 100 plants in Broome County June 19; some feeding evident. No egg masses found during thorough search in Niagara County. (N.Y. Wkly. Rpt., June 24).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - ARKANSAS - Fifty percent of first-generation moths emerged in Desha County; egg laying very light. Seventy percent of first-generation larvae pupated in Conway County; no moth emergence. One egg mass found in Crawford County which will give rise to second-generation larvae. (Ark. Ins. Sur.). MISSISSIPPI - Light to medium on corn in Oktibbeha and Copiah Counties. (Ouzts). Previous reports in CEIR 13(21): 546 and 13(23):605 first ARS records of species in Forrest and Copiah Counties. (PPC).

CORN EARWORM (Heliothis zea) - NEW MEXICO - Larvae 6-8 per 100 sweeps in Dona Ana County seed alfalfa prior to treatments. (N. M. Coop. Rpt.). TEXAS - Head infestations appearing in widely scattered areas of south plains, but little economic damage has occurred. (Tex. Coop. Rpt.). Light infestations

in Jones County causing concern by boring into stem about 12 inches below head and causing some lodging. (Clayton). OKLAHOMA - Light in grain sorghum in Garvin (8 per 100 heads) and Marshall (40 per 100 heads) Counties. Light, 1-3 per 10 sweeps, present in alfalfa in Garvin County. Field corn virtually 100 percent infested in McClain, Garvin and Bryan Counties. Moderate counts reported on corn in Choctaw County. (Okla. Coop. Sur.). KANSAS - None noted in early blooming sorghum heads and only occasional specimen noted in silking field corn in southeast. (Peters). ARKANSAS - Two isolated infestations occurred in Conway and Desha Counties on soybeans. (Ark. Ins. Sur.). ALABAMA - Extremely heavy infestation locally in Mobile County; destroyed 20-acre cornfield; 1-4 larvae per stalk in 2 to 4-foot high plants. (Wallace, Seibels). DELAWARE - Infestations in corn show slight increase in many areas over previous week; collection in light trap in Sussex County low. (Burbutis).

ARMYWORM (Pseudaletia unipuncta) - OHIO - Local infestations present in wheat in Auglaize (northwest) and Montgomery (southwest) Counties. (Brown, Blair, Vermilya; June 21). Infesting 28-acre cornfield in Clark County, west central area; controls in wheat excellent. (Holdsworth). MINNESOTA - Low numbers found in Sherburne County in small grain and corn. (Minn. Ins. Rpt.). NORTH DAKOTA - Trace observed in ryefield near Wishek, McIntosh County. (N.D. Ins. Sur.).

FALL ARMYWORM (Laphygma frugiperda) - ALABAMA - Feeding on grain sorghum in Montgomery County; first report of season. (Kendrick). TEXAS - Grain sorghum in Runnels County has 10 percent infestation of larvae boring into stalks. Apparently larvae entering stalk where it has been partially lodged by high winds. Controls being tried in several instances. (Parker).

CUTWORMS - UTAH - Moderately damaged corn in Box Elder, Weber and Utah Counties. (Knowlton, June 24). NEW YORK - Continue a problem in Suffolk County on corn. (N.Y. Wkly. Rpt., June 24). MICHIGAN - Causing injury in several northern counties; field crops such as oats, corn, alfalfa, and clover being attacked. (Festerling, Rebman, Mullett, Campana).

STALK BORER (Papaipema nebris) - MINNESOTA - Reported feeding in marginal rows of corn in south central, southeast and central districts. (Minn. Ins. Rpt.). WISCONSIN - Second and third-stage larvae relatively common along marginal rows of corn in southern counties. (Wis. Ins. Sur.). ILLINOIS - Common in marginal rows of corn and small grains in many areas; count in Will County oatfield showed 30 percent of stems infested in first 10 feet bordering a weedy roadside which had been recently mowed. (Ill. Ins. Rpt.). PENNSYLVANIA - General on corn; quite abundant this season. (Pepper). DELAWARE - Approximately 8 percent of corn plants infested in New Castle County field. (Burbutis). RHODE ISLAND - In garden corn in Warrick, Kent County. (Mathewson).

SORGHUM WEBWORM (Celama sorghiella) - OKLAHOMA - First infestation of year noted in Bryan (84 larvae per 100 heads) and Marshall (occasional larva) Counties, south central. (Okla. Coop. Sur.).

CEREAL LEAF BEETLE (Oulema melanopa) - MICHIGAN - New quarantine scheduled to go into effect July 1. Seventeen counties currently involved in quarantine. New adults emerged in large numbers from untreated research plots in Berrien County during past few days. These along with adults from other untreated areas such as fence rows, meadows, pastures, etc. migrating to corn and other succulent grass-type plants. Adult feeding injury severe where numbers high. Larvae, pupae and new adults common in infested areas. (Ring, Yun). Jackson County reported as new county in CEIR 13(26):704. (PPC). INDIANA - Recent collections in Carroll, De Kalb, Huntington, Wabash, White and Whitley Counties confirmed as this species. These are all new counties. (PPC). OHIO - New quarantine will go into effect in 14 counties on June 28. Specimens have been collected in 4 northwest counties; namely Williams, Fulton, Defiance and Allen. (Walker, Sheppard, Porter). ILLINOIS - Survey of oats, wheat, grass and

several corn fields in northeastern Iroquois, eastern Kankakee and Will, and southern Cook Counties negative. (Ill. Ins. Rpt.).

CORN ROOTWORMS (Diabrotica spp.) - SOUTH DAKOTA - Causing heavy damage in Yankton County corn fields. (Hintz et al.). NEBRASKA - Second to fourth instars feeding in corn roots in Lincoln County. Heavy larval damage present in some treated fields in northeast, east and southeast. D. undecimpunctata howardi adults feeding in corn and alfalfa in Clay and Harlan Counties. (Bergman) KANSAS - D. virgifera development as follows: Egg through adult in Riley County, with over 30 percent pupation; small larvae through adult in Republic County, with 23 percent pupation and less than 1 percent emergence. Two fields in Republic County averaged 35 larvae per plant. (Burkhardt). MISSOURI - Damage showing up in north central and northwest areas. Some northwest fields show severe root pruning. Specimens collected in northwest mainly full-grown larvae and several pupae. First D. virgifera adult of season collected in northwest on June 27. (Munson, Thomas, Wood). MINNESOTA - D. undecimpunctata howardi feeding on corn in Wabasha County. (Minn. Ins. Rpt.). OHIO - First hatch of season of D. longicornis occurred throughout State. Half-grown larvae observed in Wyandot County, northwest. (Blair).

CORN FLEA BEETLE (Chaetocnema pulicaria) - DELAWARE - Remains present on corn in many areas; feeding injury generally light. (Burbutis). MARYLAND - Adults caused moderate damage to field corn at Ellicott City, Howard County. (U. Md., Ent. Dept.).

A FLEA BEETLE (Systema frontalis) - ILLINOIS - Severely damaged field of corn in Piatt County. (Ill. Ins. Rpt.).

DUSKY SAP BEETLE (Carpophilus lugubris) - DELAWARE - First adults of season present but scarce in area of Sussex County on corn. (Burbutis).

JAPANESE BEETLE (Popillia japonica) - DELAWARE - Present but still scarce on corn in New Castle County. (Burbutis).

WIREWORMS - VIRGINIA - Medium infestation of Melanotus communis in corn in Grant, Grayson County, and severely infesting corn in Abington, Washington County. (Tarpley, Cassell, Grosedose). OHIO - Limonius dubitans collected from field of soybeans near Tiffin, Seneca County. (Blair, Lyon).

WHEAT STEM MAGGOT (Meromyza americana) - MINNESOTA - Reported to be more prevalent than usual week ending June 21. Ranged from less than 1 percent to 5 percent in southeast, south central, central, west central and northwest districts week ending June 28; about 98 percent of "white heads" caused by this species. (Minn. Ins. Rpt.). NORTH DAKOTA - Evidence of damage moderate on wheat in Oakes area, Dickey County. (N.D. Ins. Sur.). SOUTH DAKOTA - Infestations heavy in Edmunds County; 30 percent loss estimated in 200-acre wheatfield. Loss 10-20 percent in several fields. (Kantack). NEBRASKA - Less than 1 percent damage occurred in Red Willow County wheat. (Bell, Hauke, Bergman).

HESSIAN FLY (Phytophaga destructor) - NEBRASKA - Less than 1 percent infestation present in wheat in Clay and Webster Counties. (Bell, Hauke, Bergman). OHIO - Damage occurred in wheat near Findlay, Hancock County (northwest). (Kroetz, Holdsworth, June 22). "Flaxseeds" present on wheat along with Harmolita tritici and Papaipema nebris at Eaton, Preble County (southwest). (Wadlington, Holdsworth).

CORN BLOTCH LEAF MINER (Agromyza parvicornis) - CONNECTICUT - Heavy on corn in New Haven County. (Savos).

GREENBUG (Schizaphis graminum) - ILLINOIS - Varied 0-200 (averaged 41.7) per 100 sweeps in oats in Will and Cook Counties. (Ill. Ins. Rpt.). WISCONSIN - Counts

averaged 50 per sweep in later-planted fields of grains in northeast; "red leaf" most serious in areas of Oconto, Shawano and Outagamie Counties. Few problems reported in northern Chippewa County. (Wis. Ins. Sur.). MINNESOTA - Continues low in small grains; however, few fields in Sherburne County had 700-1,500 per 100 sweeps. Feeding damage very noticeable in these high count fields. (Minn. Ins. Rpt.). NORTH DAKOTA - Counts 150 per 10 sweeps in oats in Brampton area, Sargent County. (N.D. Ins. Sur.). SOUTH DAKOTA - Counts per 40 linear feet of row ranged 6-139 in Turner, McPherson, Hyde, Day and Brookings Counties June 19-24 in small grains. (Kieckhefer).

ENGLISH GRAIN APHID (Macrosiphum avenae) - ILLINOIS - Varied 30-820 (average 218) per 100 sweeps in oats in Will and Cook Counties. (Ill. Ins. Rpt.). WISCONSIN - Counts generally 50 per sweep in later-planted fields of grain in northeast; "red leaf" most serious in areas of Oconto, Shawano and Outagamie Counties. Counts elsewhere in State relatively low, although counts appear to be steadily increasing. Some rye and wheat fields have relatively high numbers on heads. (Wis. Ins. Sur.). SOUTH DAKOTA - Counts per 40 feet of row ranged 9-81 in oats in Turner, McPherson, Hyde and Brookings Counties June 19-24. (Kieckhefer).

CORN LEAF APHID (Rhopalosiphum maidis) - NEVADA - Varied 1-15 per sweep in Smith and Mason Valleys, Lyon County. (Cooney). UTAH - Causing some damage to barley in eastern Millard County. (Knowlton, Rickenbach). SOUTH DAKOTA - Averaged 22 per 40 feet of row in barley in Waubay National Wildlife Refuge, Day County, June 21. (Kieckhefer). MISSOURI - Light to moderate in whorls of late corn and grain sorghum in areas throughout State. (Munson, Thomas, Wood). RHODE ISLAND - Scattered eggs found in Kent and Providence Counties. (Hannah, Mathewson).

FALSE CHINCH BUGS (Nysius spp.) - UTAH - Largely N. ericae, numerous on range and about farms over much of Washington and Kane Counties. (Knowlton, June 24).

RICE STINK BUG (Oebalus pugnax pugnax) - ARKANSAS - Eighteen fields of rice surveyed in Lonoke County gave an average of 32 adults and 1 nymph per 100 sweeps. Fields with no grass that had formed seeds had no stink bugs present. Fields with headed grass present had as high as 25-30 per sweep present. (Ark. Ins. Sur.).

CHINCH BUG (Blissus leucopterus) - KANSAS - Considerable damage to sorghum noted in Sumner County, south central, and much less amount in adjoining Cowley County, southeast. Migrations about completed and no further damage expected. (Gates, Peters). MISSOURI - Moderate to heavy populations migrating from wheat stubble to small corn and grain in north central area. (Munson, Thomas, Wood). ILLINOIS - Averaged 10 small nymphs per linear foot of row in Cook County wheatfield. (Ill. Ins. Rpt.). SOUTH CAROLINA - Infesting corn adjacent to small grain in Newberry County. (Nettles et al., June 18).

A CHINCH BUG (Blissus leucopterus insularis) - ALABAMA - Considerable numbers beginning to damage St. Augustine grass lawns in Bullock County. (Stone, Roberts et al.).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - MINNESOTA - Populations in small grains extremely high in south central, central and southeast districts. Counts per 100 sweeps averaged 1,234 adults and 1,656 nymphs in south central, 1,000 adults and 2,000 nymphs in central, 20 in west central and trace in northwest. (Minn. Ins. Rpt.). ILLINOIS - Very abundant in some fields of oats in eastern and northeastern areas; 18 nymphs and 40 adults per sweep in one field. (Ill. Ins. Rpt.).

THRIPS - MARYLAND - Undetermined species continue to cause conspicuous streaking of corn and soybean foliage in all sections of the State. (U. Md., Ent. Dept.).

PENNSYLVANIA - Undetermined species severely injured 20-acre field of corn 18 inches high in Adams County; noticed in others. (Pepper). INDIANA - Thrips tabaci abundant on corn in many parts of State. (Gould). ILLINOIS - Unidentified species common on corn, with light silvery observed in many areas. (Ill. Ins. Rpt.). OKLAHOMA - Frankliniella spp. moderate to heavy and causing considerable deformation of peanut leaves in most south central areas. (Okla. Coop. Sur.). COLORADO - Undetermined species causing curl of leaves on spring grain in Larimer County. (Jenkins). ARIZONA - Chirothrips spp. continue to injure Bermuda grass seed fields in Yuma County. (Ariz. Coop. Sur.).

BROWN WHEAT MITE (Petrobia latens) - UTAH - Caused some damage to barley and wheat in western Millard County. (Knowlton, Ogden; June 24).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - ILLINOIS - Common on corn, but no damage observed or reported. (Ill. Ins. Rpt.).

A SPRINGTAIL - ARIZONA - Again injuring bentgrass greens on golf courses in Maricopa County. (Ariz. Coop. Sur.).

ALFALFA WEEVIL (Hypera postica) - WASHINGTON - Visible for several years in roadside alfalfa in Clarkston area, Asotin County; now causing damage to fields in that area and near Colfax, Whitman County. (Telford). IDAHO - Generally light throughout southern area on alfalfa; damage occurred in only few fields and very few fields treated. (Waters). General infestations found in Gifford, Peck, Lenora and Moscow areas; up to 30 percent leaf damage. Mating still occurring. (Kambitsch, Futter, Portman). Larvae more numerous than spring adult populations would have indicated in Canyon County; plant damage slight. (Bechtolt). Found in alfalfa from Spaulding to Orofino along Clearwater River. All fields in Fraser area also infested. Mating commonly observed. Damage to fields ranged up to 30 percent of leaf area. (Fitzsimmons, Portman). NEVADA - Larvae averaged 15-20 per sweep in Lamoille, Elko County. (Earnist). UTAH - Larvae holding back second-crop alfalfa in many northern and central area fields. (Knowlton). WYOMING - Larvae averaged 35 and adults 5-10 per 100 sweeps in alfalfa in Laramie County. (Marks). ARKANSAS - Three specimens collected in St. Francis County and one in Phillips County; latter is new county record. (Ark. Ins. Sur.). VIRGINIA - Light infestation in alfalfa locally in King George County (8 adults and 26 larvae per 100 sweeps) and King and Queen County (2 adults and 12 larvae per 100 sweeps). (Tarpley). MARYLAND - Moderate numbers of larvae continue to feed on alfalfa in central sections. (U.Md., Ent. Dept.). PENNSYLVANIA - Found in Crawford County on June 19 (new county). All counties in State now known to be infested. (Newton). Eggs and numerous small larvae on second-cutting alfalfa. Recommended controls barely or not giving satisfactory control. Farmers quite upset; many going to eliminate alfalfa in their hay program. Communications to county agents and Extension Entomologist very numerous. A very real problem. (Udine). NEW YORK - Pupation continues at rapid rate in Ulster County, with adult emergence underway June 18; present in all parts of Albany County, with damage severe in southeastern area; in Broome County, widespread in Chenango and Susquehanna Valleys and south of Binghamton, with injury apparent but not serious. (N.Y. Wkly. Rpt., June 24). VERMONT - In Windham County, larvae averaged 3 per sweep in Townshend (West River Valley) and 1-2 per 10 sweeps at Dummerston, Putney and Westminster. (MacCollom, June 24).

CLOVER SEED WEEVIL (Miccotrogus picirostris) - IDAHO - Adults still greater in white clover field margins in Lewiston, Culdesac and Moscow vicinity; averaged up to 7 per sweep. Greatest population in center of field was 2 per sweep. (Kambitsch, Futter, Portman).

BLISTER BEETLES (Epicauta spp.) - KANSAS - Present in most alfalfa examined in southeast and north central areas; only one field, in Cowley County, showed damage. (Peters).

A LEAF BEETLE (Colaspis sp.) - ILLINOIS - Adults varied 0-100 per 100 sweeps in clover and alfalfa in west-southwest district. (Ill. Ins. Rpt.).

A SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata tenella)- NEW MEXICO - Adults present in majority of alfalfa checked in Dona Ana, Roosevelt and Eddy Counties. (N.M. Coop. Rpt.).

PALE-STRIPED FLEA BEETLE (Systema blanda) - DELAWARE - Present on soybeans in most areas. (Burbutis). COLORADO - Present on alfalfa in Weld, Adams and Larimer Counties; not economic, 10-50 per 100 sweeps. (Jenkins).

MEXICAN BEAN BEETLE (Epilachna varivestis) - VIRGINIA - Unusually large numbers in Charles City and New Kent Counties on soybeans; causing considerable damage to young plants. Populations increased during past 3 years, but never so many so early. Treatments applied to seedling plants. (Settle, June 20). Light to medium infestations in most soybean fields checked in King George, Westmoreland, Richmond, Northumberland and Lancaster Counties; controls applied. (Tarpney).

BEAN LEAF BEETLE (Cerotoma trifurcata) - DELAWARE - Adults generally much lighter this season on soybeans compared to last 2-3 years. (Burbutis). OKLAHOMA - Light feeding occurring on soybeans in Pauls Valley area. (Okla. Coop. Sur.).

PEA APHID (Acyrtosiphon pisum) - IDAHO - Canyon County populations seemingly increasing on alfalfa and red clover. General infestation 10-25 per sweep; some fields had 40-50 per sweep. (Waters). Very numerous in 25-acre alfalfa field east of Nezperce. (Dailey). Building up in Canyon County alfalfa. (Bechtolt). Populations much below those of last several seasons in Jerome County alfalfa. (Priest). NEVADA - Varied 30-100 per sweep in alfalfa hay fields in Smith Valley and 30-400 per sweep in Mason Valley, Lyon County. (Cooney). Averaged 12 per sweep in hay fields in Lamoille, Elko County. (Earnist). ARIZONA - Found on alfalfa in Yuma County at Parker and also in Yuma area. Some infestations need controls. (Ariz. Coop. Sur.). UTAH - Damaging in some eastern Millard County alfalfa; moderately numerous in most. (Knowlton, Rickenbach). WYOMING - Averaged 80 per 100 sweeps in Laramie County alfalfa. (Marks). COLORADO - Increased in some uncut alfalfa in Weld County; 500-1,000 per 100 sweeps. Counts 200-600 per 100 sweeps on new growth of alfalfa in Mesa and Delta Counties. (Jenkins, Bulla). OKLAHOMA - Generally light, 0-50 per 10 sweeps, in south central area with exception of localized area in Garvin County where counts 150-2,000 per 10 sweeps noted. Light in Pawnee County (50 per 10 sweeps), north central; Choctaw County, southeast; and Kiowa County, southwest. (Okla. Coop. Sur.). NEBRASKA - Extremely low in southwestern area; averaged 12 per 10 sweeps. (Bell, Hauke, Bergman). SOUTH DAKOTA - Averaged 120-155 per 10 sweeps on alfalfa in north central, northeast and eastern areas. (Hintz). NORTH DAKOTA - Built up to 500 per 10 sweeps on alfalfa in La Moure County. (N.D. Ins. Sur.). MINNESOTA - Remained high on alfalfa past two weeks; counts per 100 sweeps week ending June 28 averaged 2,586 in south central, 2,200 in central, 1,000 in west central and 400 in northwest. Counts per 100 sweeps week ending June 21 ranged 50-2,000 in west central, 100-2,000 in south central, 300-2,000 in southeast and 200-500 in northwest. (Minn. Ins. Rpt.). WISCONSIN - Populations in alfalfa coincide rather closely with maturity of crop; counts per sweep ranged 4-14 in first cutting, 3-4 in second cutting 2-4 inches high and 20-50 in second cutting 8-10 inches high. (Wis. Ins. Sur.). ILLINOIS - Counts per 100 sweeps varied 30-1,000 in northwest and 200-1,000 in west-southwest in clover and alfalfa. (Ill. Ins. Rpt.). MARYLAND - Continues light on alfalfa in Howard and Frederick Counties; ranged 8-20 per sweep on alfalfa in Queen Annes County. (U.Md., Ent. Dept.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - Increasing in Pinal County. Infestations down in Graham County, but increasing in some other parts of State. (Ariz. Coop. Sur.). NEW MEXICO - Spotted, light infestations in Roosevelt County alfalfa. (N.M. Coop. Rpt.). OKLAHOMA - Heavy in McLain and Garvin County areas; honeydew present; 1,000-4,000 per 10 sweeps. Light to

moderate, 75-600 per 10 sweeps, in Murray and Bryan County areas; could become a problem if dry weather persists. Very light, 0-20 per 10 sweeps, in southeast and southwest and 150 per 10 sweeps in Kiowa County. (Okla. Coop. Sur.).

KANSAS - About 2 per sweep in Graham County, very scarce in Decatur County and less than 1 per sweep in Norton County; winged and wingless forms present. (Painter). Counts in south central and southeastern areas ranged 2-60 per sweep, with exception of eastern portion of southeast where only trace noted. Counts in counties with high populations were as follows: Reno, 1 field with 60 per sweep and damage apparent; Cowley, 1 field with 25 per sweep and damage apparent; Greenwood, 1 field with 50 per sweep and lower leaves yellowed and dropping off. (Peters). NEBRASKA - Populations in south and southwest counties 1 per 50 sweeps; Furnas, 1 per 10 sweeps; Hitchcock, 1 per 20 sweeps; Nuckolls, 1 per 30 sweeps; and York, 2 per 10 sweeps. (Bell, Hauke, Bergman).

COWPEA APHID (Aphis craccivora) - TEXAS - Heavy, local populations attacking field peas in Brazos County. (Randolph).

LYGUS BUGS (Lygus spp.) - NEVADA - Varied 0-50 per sweep in alfalfa hay fields in Smith and Mason Valleys, Lyon County. (Cooney). Averaged 3-5 per sweep in fields in Lamoille, Elko County. (Earnist). ARIZONA - Building up on alfalfa throughout State in both seed and hay crops. (Ariz. Coop. Sur.). NEW MEXICO - Counts per 100 sweeps averaged 8-20 adults and 12-30 nymphs in alfalfa in southern Dona Ana County, 15-60 in Roosevelt County and 30-90 in alfalfa near Artesia, Eddy County. (N.M. Coop. Rpt.). COLORADO - Nymphs increasing on alfalfa in Weld, Larimer and Adams Counties; 100-500 per 100 sweeps. (Jenkins). WYOMING - Counts per 100 sweeps in Laramie County alfalfa 20 adults and 32 nymphs. (Marks).

TARNISHED PLANT BUG (Lygus lineolaris) - NORTH DAKOTA - Adults and nymphs increasing on alfalfa and sweetclover in southeast. (N.D. Ins. Sur.). NEBRASKA - Counts ranged 4-12 per 10 sweeps in south and southwest area alfalfa. (Bell, Hauke, Bergman).

ALFALFA PLANT BUG (Adelphocoris lineolatus) - WYOMING - Adults averaged 17 per 100 sweeps in Laramie County alfalfa. (Marks). NEBRASKA - Adults 3 per 10 sweeps in Red Willow County alfalfa. (Bell, Hauke, Bergman). NORTH DAKOTA - Adults and nymphs increasing on alfalfa in southeast. This species and Lygus lineolaris 50-75 per 10 sweeps near Nome, Barnes County. (N.D. Ins. Sur.).

MEADOW SPITTLEBUG (Philaenus spumarius) - IDAHO - Adults found throughout northern area in gardens and fields. Averaged 7 per sweep in margin of white clover field in Culdesac. (Kambitsch, Portman). Populations along Clearwater River at elevations of 750-1,500 feet about 70 percent in adult stage, while at 2,500 feet elevation, 90 percent of population in nymphal stages. Heavily infested alfalfa 6-12 inches shorter than uninfested plants. (Portman, Fitzsimmons).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Adults present to fairly common on soybeans throughout State. (Burbutis). MARYLAND - Ranged 1-4 per sweep in some Howard and Frederick County alfalfa; no damage apparent yet. (U. Md., Ent. Dept.). PENNSYLVANIA - Five per 10 sweeps on alfalfa in Adams County. (Pepper). OHIO - Adults averaged 4 per sweep in alfalfa near Bainbridge, Ross County, and 2 per sweep in Wilmington County. (Lyon). ILLINOIS - Counts per 100 sweeps in alfalfa varied 20-100 adults and 0-620 nymphs in northeast, 0-1,000 adults (average 400) and 0-900 nymphs (average 225) in Bond and Madison Counties (west-southwest). (Ill. Ins. Rpt.). MINNESOTA - Counts in alfalfa per 100 sweeps average 51 in south central, 100 in central, 50 in southeast, 40 in west central and trace in northwest district. (Minn. Ins. Rpt.).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - ARIZONA - Increasing in Pinal County. Present in all parts of State and causing injury in many fields. (Ariz. Coop. Sur.).

GARDEN FLEAHOPPER (Halticus bracteatus) - DELAWARE - Present on soybeans in New Castle County. (Burbutis).

GARDEN WEBWORM (Loxostege similalis) - OKLAHOMA - Light in all south central areas checked, 0-3 per 10 sweeps. Also light in Pawnee (north central) and Choctaw (southeast) Counties. Heavy populations continue in alfalfa in Kiowa County (southwest), 35-60 per 10 sweeps. (Okla. Coop. Sur.). MISSOURI - Light to moderate populations observed in northwest area alfalfa; light in weedy soybeans in central and northwest areas. (Munson, Thomas, Wood). MINNESOTA - Feeding on corn near Austin, Mower County; few infested plants observed. (Minn. Ins. Rpt.).

WEBWORMS (Loxostege spp.) - KANSAS - Counts in alfalfa in south central and southeast generally averaged 10-150 larvae per 100 sweeps; only few fields with 5-10 percent of plants webbed. (Peters).

ALFALFA CATERPILLAR (Colias eurytheme) - NEW MEXICO - Larvae found in alfalfa in northern Eddy County; averaged 10-25 per 100 sweeps. (N.M. Coop. Rpt.). PENNSYLVANIA - Adults unusually abundant this year in south central area. (Pepper). MARYLAND - Light to moderate on alfalfa in Howard County. (U. Md., Ent. Dept.).

FORAGE LOOPER (Caenurgina erechtea) - KANSAS - Larvae ranged 10-300 per sweep in alfalfa in southeast and south central areas. (Peters).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - KANSAS - Larvae noted in most alfalfa in south central and southeast; ranged 0-30 per 100 sweeps. (Peters).

SPIDER MITES (Tetranychus spp.) - ARIZONA - Causing injury to some alfalfa seed fields in Yuma County. Also injuring corn in Yuma County. (Ariz. Coop. Sur.). IDAHO - T. telarius found in Canyon County alfalfa for first time this year; all stages present. (Bechtolt). ILLINOIS - T. telarius damaged soybeans locally in west district. (Ill. Ins. Rpt.). MARYLAND - Light numbers found on soybeans in Queen Annes and Worcester Counties; expect buildups if dry weather continues. (U. Md., Ent. Dept.).

CORRECTIONS

CEIR 13(13):163, and (25):669 - MAP - Distribution of Alfalfa Weevil - Distribution record for Yuma County, Arizona, in error. Delete area in southwestern part of State on California-Arizona state line. Area in north-central (Coconino County) only known infested county in State.

CEIR 13(24):644 - COCCIPS - ARIZONA - "Unspecified species ..." should read "Coccus pseudomagnoliarum ...".

FRUIT INSECTS

APPLE MAGGOT (*Rhagoletis pomonella*) - MINNESOTA - First adult of season trapped in La Cresent area June 24. (Minn. Ins. Rpt.). WISCONSIN - Adults appearing in Dane and Waupaca Counties. Adults collected in bait traps in Madison and Brodhead areas; three caught on June 20. (Wis. Ins. Sur.). MICHIGAN - First adults emerged in Oceana County June 25; first maggot controls recommended north of Ottawa-Kent-Montcalm-Gratiot-Saginaw County line by July 4. (Tompkins). OHIO - First adults of season in cages and traps in Lake County June 21. (Still). NEW YORK - Adult emergence at Poughkeepsie began June 16; increased steadily after June 18. In Niagara County, four males and two females taken from emergence cage June 21. First adult emergence in Niagara County occurred June 20, compared with June 26 at same location in 1962. (N.Y. Wkly. Rpt.). CONNECTICUT - Active since June 24 at slow rate; controls recommended. (Savos). NEW JERSEY - First adults of season trapped June 18 at Hammonton, Atlantic County, June 19 at Pemberton, Burlington County. (Ins.-Dis. Newsltr.). MASSACHUSETTS - Adults on untreated fruit. (Wheeler).

CHERRY FRUIT FLY (*Rhagoletis cingulata*) - NEW YORK - Emergence extremely slow in Monroe County; from one cage in early zone at Spencerport, emergence by date was as follows: June 8 - 12, June 9 - 10, June 10 - 1, June 11 - 2, June 12 - 0, June 13 - 2, June 14 - 6, June 15 - 1, June 16 - 3, June 17 - 0, June 18 - 2, June 19 - 0. (N.Y. Wkly. Rpt.).

CODLING MOTH (*Carpocapsa pomonella*) - VERMONT - Activity expected with high night-time temperatures this period; emergence began previous period. (MacCollom, June 24). NEW YORK - Moth activity reduced by cool temperatures in eastern area, but spring-brood flight continues. Eggs hatching and many larval entries found in unsprayed orchards in Niagara County; moth emergence still moderate in emergence cage. Conditions not favorable for egg laying in Orleans County. Moth emergence in four cages seeded with 1,036 larvae in Monroe County, by date, as follows: June 10 - 7, June 11 - 4, June 12 - 1, June 13 - 5, June 14 - 13, June 15 - 15, June 16 - 15, June 17 - 18, June 18 - 22, June 19 - 22, June 20 - 28. Not considering winter mortality, 31 percent of moths emerged. (N.Y. Wkly. Rpt.). NEW JERSEY - Entries easily found in unsprayed apple orchard at Cranbury, Middlesex County. (Ins.-Dis. Newsltr., June 25). INDIANA - First-brood peak activity past at Vincennes, Knox County; however, occasional adult still being taken in bait traps in orchard not sprayed in June. (Hamilton, June 25). MISSOURI - Appearing in at least one orchard in northwestern area; where controls stopped early, few adults reported. (Wkly. Rpt. Fr. Grs., June 26). WISCONSIN - Two traps at Gays Mills yielded two adults on June 18 and one on June 24; none on dates between. Trap at Madison with one each on June 18 and 22 and eight on June 24. Trap at Middleton with one each on June 18, 19, 21, 22, and 24. (Wis. Ins. Sur.). COLORADO - Between-brood treatments posted for July 1 in Olathe area and July 3 in Montrose area, Montrose County. (Bulla).

ORIENTAL FRUIT MOTH (*Grapholitha molesta*) - ALABAMA - Second generation attacking apple twigs in Coosa County. (Sessions). NORTH CAROLINA - Larvae present in tips of peach twigs in Lincoln County. (Mount, Waynick). CONNECTICUT - Little injury reported from Niantic; populations low for past few years and below economic levels in most of State. (Savos). INDIANA - Adults especially active at Vincennes, Kox County, June 11-16; small numbers still present June 25. Second-brood larval entries in twigs high June 18-21. (Hamilton). MISSOURI - Half-grown larvae in terminals in central area; light in southeast and northwestern areas. (Wkly. Rpt. Fr. Grs., June 26).

FRUIT-TREE LEAF ROLLER (*Archips argyrospilus*) - NEW JERSEY - Moths emerging. (Ins.-Dis. Newsltr., June 25). NEW YORK - Large numbers of moths present in unsprayed orchards in eastern area. (N.Y. Wkly. Rpt., June 24). WISCONSIN - Two traps at Gays Mills yielded following: June 18 - 8, June 19 - 3, June 20 - 4, June 21 - 2, June 22 - 1, June 23 - 12, and June 24 - 3. (Wis. Ins. Sur.).

LESSER PEACH TREE BORER (Synanthedon pictipes) - ALABAMA - Causing heavy damage to untreated trees in Lee County. (McQueen).

PEACH TREE BORER (Sanninoidea exitiosa) - ALABAMA - Causing heavy damage to untreated trees in Lee County. (McQueen). MISSOURI - No problems reported. (Wkly. Rpt. Fr. Grs., June 26). NEW YORK - Few infested peach trees in Nassau County dropping leaves and giving droopy appearance. (N.Y. Wkly. Rpt., June 24). PENNSYLVANIA - Emerging on peach in Adams County June 27. (Pepper).

WESTERN PEACH TREE BORER (Sanninoidea exitiosa graefi) - OREGON - Infesting mazzard cherry liners in nursery in Eugene. (Dimalla).

CATFACING INSECTS - TEXAS - Many complaints of distorted fruit noted; most damage occurred earlier and now noticed by producers. (Newton). CONNECTICUT - Few growers suffered from plant bug injury on peaches; most now disappeared. (Savos). RHODE ISLAND - Heavy catfacing in peach locally in Warwick, Kent County; probably Lygus lineolaris. (Mathewson).

PERIODICAL CICADAS - INDIANA - Oviposition complete in Vincennes area, Knox County; only occasional adult now found in orchards. (Hamilton, June 25).

ORCHARD MITES - UTAH - Becoming serious in several Box Elder County orchards. (Knowlton, Allred). INDIANA - Control continues principal problem in apple orchards at Vincennes, Knox County. Weather ideal for mite development. As populations vary extensively from orchard to orchard, control for each orchard now individual problem. (Hamilton, June 25). NEW YORK - Steadily increasing on fruit trees in Nassau County. (N.Y. Wkly. Rpt., June 24). PENNSYLVANIA - Very few noted on apple in south central area. (Pepper). RHODE ISLAND - Bryobia rubrioculus very heavy on untreated peach and apply locally in Providence County. (Mathewson).

EUROPEAN RED MITE (Panonychus ulmi) - NEW YORK - Peak populations should occur about July 8 in eastern area. Building up in some Westchester County orchards; developing slowly in Orleans County; few adults and eggs appearing in Monroe County, but not serious. (N.Y. Wkly. Rpt., June 24). CONNECTICUT - Active on apples. (Savos). MICHIGAN - Sizable populations noted on apple trees in Oakland, Monroe, and Ingham Counties. (Proctor, Wolfe). MISSOURI - Populations increased in both southeast and northwest; apparently mixed mite populations in southeast and central areas. (Wkly. Rpt. Fr. Grs., June 26).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - SOUTH CAROLINA - Rapidly building up in apple orchard in Tamassee area, Oconee County. (Nettles et al., June 18). CONNECTICUT - Active on apples. (Savos). MICHIGAN - Heavy on Delicious apple trees in Genesee County orchard. (Proctor, Wolfe). MISSOURI - Ranged none to light to heavy in west central area; few reported present in northwest area but hard to find. In southeastern area, part of population probably T. canadensis and Panonychus ulmi. (Wkly. Rpt. Fr. Grs., June 26). COLORADO - Increasing on cover crops in Mesa County, with up to 20-30 per leaf on bindweed; few found in trees. Numerous on apple trees in Boulder County. (Bulla, Hantsbarger).

SCALE INSECTS - TEXAS - Several species becoming troublesome on peach, plum, apple, pear, and apricot trees in central and north central areas. (Tex. Coop. Sur.). FLORIDA - Aspidiotus perniciosus light on pear at De Land, Volusia County. (Roberts, June 19). PENNSYLVANIA - Lecanium corni hatching on peach in Snyder County June 25. (Gesell). MICHIGAN - L. corni hatching 75 percent complete in Ingham County; controls recommended in July. (Dowdy). IDAHO - A. perniciosus crawlers active in Canyon County. (Bechtolt).

APPLE APHID (Aphis pomi) - PENNSYLVANIA - Very few noted in apple orchards. (Udine). CONNECTICUT - Increasing on sucker and terminal growth, especially in middle of tree tops. (Savos). RHODE ISLAND - Common on untreated apple in Lincoln and Cumberland, Providence County. (Mathewson).

BLACK CHERRY APHID (Myzus cerasi) - OREGON - Requires controls in Marion County cherry orchards. (Stephenson).

PEAR PSYLLA (Psylla pyricola) - CONNECTICUT - Appears under control in most commercial orchards, but extremely heavy in untreated checks at Storrs. (Savos).

PLUM CURCULIO (Conotrachelus nenuphar) - NEW YORK - Some late injury to plums noted in Monroe County. (N. Y. Wkly. Rpt., June 24). FLORIDA - Heavy on Prunus sp. at Orange Lake and Lowell, Marion County. (Adkins, June 17).

GRAPE SAWFLY (Erythraspides vitis) - NORTH CAROLINA - Larvae abundant on grape leaves in Brunswick. (Mount, West).

JAPANESE BEETLE (Popillia japonica) - NORTH CAROLINA - Destroying grapes at home in Hertford County. (Wright).

CURRENT FRUIT FLY (Epochra canadensis) - IDAHO - Nearly 100 percent of currants infested in home yard planting in Parma. (Scott).

AN AVOCADO LEAFHOPPER (Idona minuenda) - FLORIDA - Moderate on 25 avocado trees at Homestead, Dade County. (Knowles, June 7).

A PLANT BUG (Plagiognathus albatus vittiscutis) - FLORIDA - Moderate on pecan at Monticello, Jefferson County. (Phillips, May 7).

PECAN NUT CASEBEARER (Acrobasis caryae) - TEXAS - First adult of second generation observed in Hamilton County June 22. (Lawrence). ALABAMA - Light in large orchard in Bullock County; all specimens in pupal stage in small nuts. (Roberts et al.).

FALL WEBWORM (Hyphantria cunea) - ALABAMA - Infestation seems checked following rains in Mobile, Bullock and Lee Counties; numerous colonies dead in Bullock County pecans where no controls used. (Wallace, Seibels, Roberts et al.).

BLACK-MARGINED APHID (Monellia costalis) - ARIZONA - Very prevalent on pecans in Graham County. (Ariz. Coop. Sur.).

AN ERIOPHYID MITE (Aceria brachytarsus) - CALIFORNIA - Larvae medium on walnut trees in Fresno, Fresno County. (Cal. Coop. Rpt.).

MEDITERRANEAN FRUIT FLY (Ceratitis capitata) - FLORIDA - Collected in three locations in Miami, Dade County, on June 19, 20 and 21. (Humphries, Hickman, Brandt). MEXICO - Total of 7,170 inspections of 3,519 traps negative in States of Chiapas, Sinaloa, Sonora, Baja California, Yucatan, Campeche, Hidalgo, Veracruz, Tamaulipas, Tabasco and Guerrero and the Territory of Quintana Roo. (PPC, Mex. Reg., May Rpt.).

MEXICAN FRUIT FLY (Anastrepha ludens) - CALIFORNIA - Single male taken in a trap located adjacent to Tijuana in San Diego County on July 1. (Cal. Coop. Rpt.). MEXICO - Trapping during May in States of Baja California and northwestern Sonora negative. (PPC, Mex. Reg.).

CITRUS BLACKFLY (Aleurocanthus woglumi) - Biological Control Zone - Total of 36,345 citrus trees inspected on 230 properties in southern Tamaulipas; 329 trees on 11 properties found infested. All light except one tree with medium infestation. Large number of adult Prospaltella opulenta noted in heavily infested trees in Municipio Llera, Tamaulipas; parasite expected to reduce infestation. Satisfactory control by parasites in groves north of Mante, Tamaulipas, except in one heavily infested grove with no parasites. Parasites generally hold infestations under control in Rio Verde section of San Louis Potosi; about one million citrus trees in that area. Chemical Control Zone - Total of 92,395 citrus trees inspected, with negative results, on 2,444 properties in States of Nuevo Leon, Tamaulipas, Baja California and Sonora. (PPC, Mex. Reg., May Rpt.).

SPIREA APHID (Aphis spiraeicola) - FLORIDA - Light to moderate on about 20,000 citrus trees at Oakhill, Volusia County. (Pott, June 5).

LEAFHOPPERS - ALABAMA - Oncometopia spp. and Homalodisca spp. nymphs and adults quite common and feeding on new grafts of citrus in Mobile County. (Wallace, Seibels).

LEAF-FOOTED BUG (Leptoglossus phyllopus) - ALABAMA - Moderate on citrus in Mobile County. (Wallace, Seibels).

ORANGE-DOG (Papilio cresphontes) - ARIZONA - Appearing on citrus in some groves in Yuma area. (Ariz. Coop. Sur.).

A PINK CITRUS MITE (Aculus pelekassi) - FLORIDA - Infested citrus at Lutz (Hale, Fuller, June 6) and Tampa (Custead, June 12), Hillsborough County; at Pine Castle, Orange County (Crews, June 5); at Eagle Lake (Norton, June 18) and Davenport (Norton, Tyner, June 20), Polk County; at Umatilla, Lake County (Bentley, June 14).

SPIDER MITES (Eotetranychus spp.) - ARIZONA - E. yumensis and E. lewisi continue to cause injury to citrus in Yuma area. (Ariz. Coop. Sur.).

TRUCK CROP INSECTS

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - UTAH - Infestation on tomatoes in Weber and Davis Counties above normal this season. (Knowlton, Duncan; June 24). TEXAS - Low numbers of larvae and adults on various wild hosts in Bailey County. (Tex. Coop. Rpt.; Hatchett). MISSOURI - Reported on potatoes near Greenwood and in Boone County. (Wkly. Rpt. Fr. Grs., June 26). OHIO - All larval stages and adults observed on potato plants in many southwestern counties. Several potato plants 50-95 percent defoliated near Hillsboro, Highland County. (Lyon). NEW YORK - Active in Albany County; some adults still laying eggs in Suffolk County. (N. Y. Wkly. Rpt., June 24). RHODE ISLAND - Under control in most commercial plantings in State; heaviest infestations in home gardens. (Sheehan, Mathewson). NEW JERSEY - Still active on eggplant, tomatoes, peppers and potatoes. (Ins.-Dis. Newsltr., June 25). DELAWARE - Present to numerous in few tomato fields in Sussex and Kent Counties; most fields throughout State not infested. (Burbutis). ALABAMA - Medium on potatoes in home gardens in Madison County. (Howell).

POTATO FLEA BEETLE (Epitrix cucumeris) - MICHIGAN - Adults heavy in Clinton, Ottawa and Menominee Counties. (Wells, Bowers, Machiele). RHODE ISLAND - Under control in most commercial potato plantings in State; heaviest in home gardens. (Mathewson).

FLEA BEETLES (undetermined) - VERMONT - Active on potatoes and tomatoes. (MacCollom, June 24). UTAH - Damage to tomato plants moderate this season in northern and central areas. (Knowlton, Duncan, June 24). Caused some damage to beets, radishes and turnips in Delta area, Millard County. (Knowlton, June 24). MISSOURI - Again appearing on eggplants in central area. (Wkly. Rpt. Fr. Grs., June 26).

A WEEVIL (Cylindrocopturus adspersus) - CALIFORNIA - Adults medium on tomato plantings in Reedley, Fresno County. (Cal. Coop. Rpt.).

POTATO PSYLLID (Paratrioza cockerelli) - COLORADO - Not found in economic numbers in Weld and Rio Grande Counties. (Jenkins).

Potato Aphids in Maine - Populations on untreated potato foliage at Presque Isle, Aroostook County, very small but increased at about normal rate. Average total number of aphids per plant increased from 0.1 to 0.2, while percent of plants

infested increased from 3.6 to 9.0. BUCKTHORN APHID (Aphis nasturtii) predominates. Small numbers of POTATO APHID (Macrosiphum euphorbiae) and traces of FOXGLOVE APHID (Acyrtosiphon solani) and GREEN PEACH APHID (Myzus persicae) present also. Overall populations now nearly four times size of 1962 and about double those of 1961 at same times. (Shands et al.).

AN APHID (Smynthuroides betae) - NORTH CAROLINA - Stunting tomato plants in one-acre field; noted on roots. Det. by C. F. Smith. (Mount, June 21).

HORNWORMS (Protoparce spp.) - ARIZONA - Prevalent in some tomato fields in Yuma area. (Ariz. Coop. Sur.). MICHIGAN - P. quinquemaculata emerging in Ingham County June 25. (Terry). MARYLAND - Light numbers of eggs noted on peppers and tomatoes in Worcester County. (U. Md., Ent. Dept.).

TOMATO PINWORM (Keiferia lycopersicella) - CALIFORNIA - Medium in cherry tomato crops in Niland, Imperial County. (Cal. Coop. Rpt.).

TOMATO RUSSET MITE (Aculus lycopersici) - ARIZONA - Injuring many tomatoes in central area. (Ariz. Coop. Sur.).

GARDEN SYMPHYLAN (Scutigerella immaculata) - COLORADO - Causing loss of tomato plants in field near Johnson, Weld County; 66 percent of plants lost. (Jenkins).

MEXICAN BEAN BEETLE (Epilachna varivestis) - IDAHO - Survey within Jerome City limits on May 19 failed to locate any adults or feeding injury; no adults detected through June 24. (Douglas, Priest). COLORADO - Causing trace damage in Larimer and Weld Counties. (Ins. Det. Comm.). MISSISSIPPI - Ranged light to heavy on beans in Choctaw and Prentiss Counties. (Ouzts). DELAWARE - Larvae present in large field of lima beans in southern Kent County. (Burbutis). VIRGINIA - Causing considerable damage to home gardens. Numerous for past 3 years but never so many so early. (Settle, June 20). ALABAMA - Activity appears checked by recent rains in Mobile County. (Seibels, Wallace).

PEA WEEVIL (Bruchus pisorum) - IDAHO - Numbers much greater this year in Latah and Nez Perce Counties than experienced for past several years; populations along margins of one Monroe Austrian winter peafield ran up to 8 per sweep. (Kambitsch, Portman).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Adults common on beans in several areas of State; on potatoes in Kent County. (Burbutis). WISCONSIN - Increasing on beans in western part of State; considerable number of adults present on lima and snap beans in La Crosse and Trempealeau Counties. Up to 5 per leaf on planting of snap beans near Holmen. (Wis. Ins. Sur.).

PEA APHID (Acyrtosiphon pisum) - OREGON - Averaging 8-10 per tip on fields of freezing varieties of peas in Woodburn area. (Hanna). IDAHO - Populations in green and seed peas below those requiring control in Lapwai and vicinity. (Portman, Kambitsch). Populations on peas below those of 1962. (Dailey). WISCONSIN - General, overall decrease observed and/or reported in most areas. Averaged 0.7 in Iowa County and 1.8 in Trempealeau County, per sweep, on early varieties of peas. Averaged 3 in Iowa County, 1.5 in Trempealeau County, 2 in Dane County, 15 in Dodge County, 5 in Fond du Lac County and 6 in Sheboygan County, per sweep, in late and midseason peas. (Wis. Ins. Sur.).

LEAF-FOOTED BUG (Leptoglossus phyllopus) - ALABAMA - Heavy in several fields of beans in Mobile County. (Wallace, Seibels).

STRIPED CUCUMBER BEETLE (Acalymma vittata) - DELAWARE - Generally very light on cucumbers and squash throughout State; common in field of watermelon in southwestern Sussex County. (Burbutis). MISSOURI - High populations on watermelons, cantaloups and squash in northwest area. (Munson, Thomas, Wood).

SQUASH BEETLE (Epilachna borealis) - NORTH CAROLINA - Adults noted on squash in Johnston County garden; no eggs, but a few small larvae present. (Mount).

SQUASH VINE BORER (Melittia cucurbitae) - WISCONSIN - Adults appearing in southern counties; observed in Madison area June 22. (Wis. Ins. Sur.).

SQUASH BUGS (Anasa spp.) - OKLAHOMA - A. tristis heavy on cucurbits in Bryan County area. (Okla. Coop. Sur.). DELAWARE - A. armigera on squash in southwest Sussex County. (Burbutis).

ASPARAGUS BEETLES (Crioceris spp.) - RHODE ISLAND - C. asparagi and C. duodecimpunctata common in planting in Lincoln, Providence County. (Mathewson). WISCONSIN - All stages of C. asparagi and C. duodecimpunctata causing noticeable damage to asparagus in Eau Claire County. (Wis. Ins. Sur.).

THRIPS - NEW MEXICO - Unspecified species moderately heavy and causing some damage to onions in Portales area, Roosevelt County; most fields treated. (N. M. Coop. Rpt.). COLORADO - Thrips tabaci counts 5-10 per plant on onions in Delta and Montrose Counties; fields treated where counts range 15-20 per plant. (Bulla). IDAHO - Undetermined species, probably Frankliniella tritici and T. tabaci - populations in Melba onion seed fields large; up to 350 per umbel. Damage ranges from trace to 50-70 percent of florets destroyed. Also destroying carrot seed plant umbels on very immature umbels and florets on more mature umbels, but not on flowering umbels. (Scott).

ONION MAGGOT (Hylemya antiqua) - COLORADO - Adults taken in bait traps in Delta County; no maggots found in fields to June 28. Loss of onions continues in Adams and Weld Counties. (Bulla, Jenkins).

WHEAT CURL MITE (Aceria tulipae) - IDAHO - Infested experimental onions in Parma area; ranged up to 40 per floret on umbels. (Scott).

BEET WEBWORM (Loxostege sticticalis) - UTAH - Flight conspicuous nights of June 17 and 18; moderate flights June 19, 20, 25 and 26 at Ogden, Weber County. (Knowlton). WYOMING - Few larvae appearing in sugar beets in Laramie County; averaged 3 per 100 plants in fields surveyed. (Marks). COLORADO - Adults numerous in Adams, Larimer, Logan and Weld Counties; trace numbers of adults in Mesa County. Larvae present on sugar beets in trace numbers in Weld County. (Jenkins, Bulla).

BEET LEAFHOPPER (Circulifer tenellus) - COLORADO - Counts high in late plantings; 1-3 per square foot in Mesa County and 1-2 per square foot in Montrose County. (Bulla).

SPINACH LEAF MINER (Pegomya hyoscyami) - OREGON - Infesting table beets in Eugene area. (Crowell).

IMPORTED CABBAGEWORM (Pieris rapae) - DELAWARE - Causing heavy damage to small field of cabbage in Sussex County. (Burbutis). PENNSYLVANIA - Adults unusually abundant in south central area. (Pepper). MICHIGAN - Young larvae appearing in Monroe County. (Proctor). OHIO - Larvae and adults moderate to heavy on cabbage throughout southwestern area. Several cabbage plants in Highland County severely eaten by larvae; 3-4 larvae per cabbage plant in some instances. Groups of 3-5 adults flying near cabbage plants and depositing eggs. (Lyon). WISCONSIN - Adults very common in southwest and west; larvae scarce. (Wis. Ins. Sur.).

CABBAGE MAGGOT (Hylemya brassicae) - NEW YORK - Damage reported by one grower in Albany County. (N. Y. Wkly. Rpt., June 24). RHODE ISLAND - Numerous in radishes in Kingston, Washington County. (Hyland).

A JAPANESE WEEVIL (Calomycterus setarius) - DELAWARE - On horseradish in a Kent County area. (Burbutis).

SWEETPOTATO WEEVIL (Cylas formicarius elegantulus) - Two specimens found in traps at Charleston, SOUTH CAROLINA. In GEORGIA, 13 properties released from regulation. Surveys in north FLORIDA counties resulted in finding 2 infestations in Gadsden County, 9 in Holmes County, 96 in Jackson County, one in Madison County, 3 in Okaloosa County and one in Walton County; seedbeds and storage sites being cleaned as found. All surveys in ALABAMA negative except in Escambia County where 4 new infestations found. In MISSISSIPPI, 2 infested properties found in Simpson County and one in Lincoln County; negative surveys made in 7 other counties. All surveys negative in LOUISIANA; 13 properties released from regulation. (PPC, South. Reg., May Rpt.).

STRAWBERRY ROOT APHID (Aphis forbesi) - WISCONSIN - Killed small planting of strawberries in La Crosse County. (Wis. Ins. Sur.).

TWO-SPOTTED SPIDER MITE (Tetranychus telarius) - COLORADO - Numerous on strawberries in Weld County. (Bulla, Hantsbarger).

CYCLAMEN MITE (Steneotarsonemus pallidus) - NEW YORK - Severe on bed of strawberries in Niagara County. (N. Y. Wkly. Rpt., June 24).

SAWFLIES - MINNESOTA - Damage severe on strawberries and raspberries in Aitkin and Grand Rapids areas. (Minn. Ins. Rpt., June 21).

A SPIDER MITE (Tetranychus cocosinus) - FLORIDA - Light on blackberry at Fort Pierce, St. Lucie County. (Hayslip, June 3).

PARSLEYWORM (Papilio polyxenes asterius) - ALABAMA - Larvae feeding heavily on carrots, parsley and dogfennel in several locations in Mobile County. (Seibels).

GREEN PEACH APHID (Myzus persicae) - WASHINGTON - Average 1 per 10 leaves on sugar beets; increasing most rapidly in Walla Walla County. (Landis). COLORADO - Counts low in early potato fields in Weld County; 2-4 per 100 leaves in most fields examined. Field near La Salle, Weld County, with increasing population and now at 227 per 20 leaves. Trace numbers present on late potatoes in Larimer County. (Berry, Cress, Jenkins). DELAWARE - Scarce on peppers in Sussex County area. (Burbutis).

TOBACCO INSECTS

HORNWORMS (Protoparce spp.) - MARYLAND - Larvae caused heavy damage in one St. Marys County tobacco field. (U. Md., Ent. Dept.). VIRGINIA - Larvae generally very light on tobacco in Pittsylvania County; light trap collections unusually low to date. (Dominick, June 24).

TOBACCO BUDWORM (Heliothis virescens) - VIRGINIA - Larvae generally very light on tobacco in Pittsylvania County. (Dominick, June 24).

GREEN PEACH APHID (Myzus persicae) - MARYLAND - Light infestations generally present on tobacco in St. Marys County. (U. Md., Ent. Dept.).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - MARYLAND - Adults abundant in several tobacco fields in St. Marys County. (U. Md., Ent. Dept.).

COTTON INSECTS

BOLL WEEVIL (*Anthonomus grandis*) - NORTH CAROLINA - Observed in nearly all areas of State; nearly all cotton rapidly approaching 8-leaf stage; controls recommended. (Cott. News Ltr., June 20). Numbers quite low in Scotland County. Highest counts in experimental plots; about 25 per acre. (Mistic). SOUTH CAROLINA - Emergence increased over previous week in Florence area, and infestations increasing in both treated and untreated fields. With rain restricting insecticide applications, infestations can become severe. (Taft et al., June 26). GEORGIA - Percent punctured squares June 13-19 in southern area, 1-10 in 85 percent of fields, 11-25 in 2 percent of fields and none in 13 percent of fields. Activity increased somewhat from previous week, but remains generally low. With current rainy weather coinciding with expected emergence of first-generation weevils in many fields, sharp increase in infestations expected. (Jordan, June 24). Percent punctured squares June 20-26 in 20 counties, 19 below fall line and 1 in northwest, 1-10 in 91 percent of fields, 11-25 in 4 percent of fields and none in 5 percent of fields. (Jordan, June 28). ALABAMA - Several adults reported from Monroe County. Larvae becoming full grown and emergence of new generation evidently occurred in some spots in southern end of State. Infestation 40 percent punctured squares locally in southern area. Increased emergence of new generation expected in other areas; movement of overwintered adults continues. (McQueen et al.). TENNESSEE - Some squares show signs of feeding and egg laying in early cotton. Conditions ideal for emergence from hibernation. Some weevils found in Chester, Hardin, McNairy, Hardeman, Fayette and Shelby Counties. (Locke). MISSOURI - Three adults collected; total of 856 fields scouted. (French). MISSISSIPPI - Light in delta counties, and in Attala, Calhoun, Choctaw, Copiah, Holmes, Jefferson Davis, Lowndes, Madison, Monroe, Prentiss and Quitman Counties; controls applied. (Ouzts). In delta counties, punctured squares found in 21 of 37 fields checked. In infested fields, average percent punctured squares 1.2 (range 0.25-16.67). (Pfrimmer et al.). LOUISIANA - Overwintered populations remain light in Tallulah area. Square infestation light generally, but some first-brood weevils observed. Emergence from hibernation should be about finished. (Smith et al.). TEXAS - Except for few locally heavy infestations in southern and northwest areas, situation fairly favorable and some say this is lightest year of last several. (Tex. Coop. Rpt.). In McLennan and Falls Counties, percent punctured squares averaged 1.3 in early treated fields and 10.8 in untreated fields with overall average of 2.7. (Cowan et al.). OKLAHOMA - Activity present in all cotton fields checked; percent punctured squares by counties 2-6 in Garvin, 16 in Johnson, 6 in Bryan, 12 in Marshall, 1 in Choctaw and 4 in Kiowa. (Okla. Coop. Sur.).

BOLLWORMS (*Heliothis* spp., et al.) - GEORGIA - Eggs per 100 terminals in southern area June 13-19 ranged 1-10 in 77 percent of fields, 11-25 in 5 percent of fields, 26-50 in one percent of fields and none in 18 percent of fields. Larvae per 100 terminals ranged 1-3 in 45 percent of fields, 4-10 in 11 percent of fields, 11-25 in one percent of fields and none in 43 percent of fields. Situation unchanged from previous week; few more fields had larvae than previous week. (Jordan, June 24). Counts per 100 terminals in 20 counties, 19 below fall line and 1 in northwest, were as follows: Eggs 1-10 in 81 percent of fields, 11-25 in 3 percent of fields and none in 16 percent of fields. Larvae 1-3 in 52 percent of fields, 4-10 in 17 percent of fields, 11-25 in 2 percent of fields and none in 29 percent of fields. Number of eggs has remained fairly constant past 3 weeks, but larvae increased. Constitute major immediate threat and rains complicated problem. (Jordan, June 28). ALABAMA - Eggs decreased; ranged 0-30 per 100 terminals; probably result of rains working eggs off plants and decreased moth flights. Count of larvae in Autauga County field revealed that *H. virescens* 3 times more abundant than *H. zea*. (McQueen et al.). TENNESSEE - Small larvae causing some injury to young squares in isolated cases over western area, with heaviest damage being in rank, early cotton; counts ranged 0-16 larvae or eggs per 100 terminals. Controls needed in number of cases. (Locke). MISSOURI - Total of 856 fields scouted; 14 fields infested with 0-2 larvae per 100 plants. (French). ARKANSAS - Limited examinations show

presence of H. virescens in cotton; 7 of 10 larvae taken in cotton in Little River County were H. virescens and 4 of 7 taken in Conway County were H. virescens. (Ark. Ins. Sur.). MISSISSIPPI - H. zea and H. virescens (approximately 50 percent each species) light to medium on cotton in delta counties, and in Attala, Calhoun, Copiah, Holmes, Jefferson Davis, Lowndes, Madison, Monroe, Montgomery and Quitman Counties; controls applied. (Ouzts). In delta counties, eggs averaged 0.4 per 100 terminals in 4 of 37 fields checked. Larvae found in terminals in 9 of 37 fields and injured squares found in 18 of 37 fields. In infested fields, average percent injured squares 3.4 (range 0.67-16.67). (Pfrimmer). LOUISIANA - Square damage heavy on few farms in Tallulah area; treatments applied. Egg and larval terminal counts generally low. (Smith et al.). TEXAS - Moths of H. zea increased greatly and egg deposition has been very heavy in practically all of eastern half of State; high larval populations expected within next few days. Percentage of H. virescens in bollworm-tobacco budworm complex steadily dropping due to increased H. zea activity. (Tex. Coop. Rpt.). In McLennan and Falls Counties, counts per 100 terminals 23.5 eggs and 8.2 larvae. Square injury averaged 7.1 percent in untreated fields and 4.2 percent in treated fields. Boll injury averaged 6.7 percent. Determinations of larvae showed further decrease in number of H. virescens with 89 percent being H. zea. (Cowan et al.). OKLAHOMA - No square damage noted in Garvin, Johnson and Marshall Counties. In Bryan County, 2 percent square infestation noted with 28 percent of plants showing egg deposition in one field. Counts of 5-6 percent noted in Kiowa and Choctaw Counties. (Okla. Coop. Sur.).

BOLLWORM (Heliothis zea) - NEW MEXICO - Adults appearing in light traps in Mesilla and Pecos Valley areas. (N. M. Coop. Rpt.). ARIZONA - Appearing on cotton in most parts of State. (Ariz. Coop. Sur.).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Economic infestations continue in areas of coastal bend and upper coastal counties. Few infested blooms found in central area near Waco. (Tex. Coop. Rpt.). ARIZONA - One moth emerged from cages located at Safford, Graham County. (Ariz. Coop. Sur.).

BEE T ARMYWORM (Spodoptera exigua) - TEXAS - Beginning to cause light but noticeable damage to cotton in Midland and Culberson Counties. (Tex. Coop. Rpt.).

GARDEN WEBWORM (Loxostege similalis) - TEXAS - Infestations sufficient to justify controls in areas of Collingsworth, Wheeler, Floyd, Cottle, King, Hardeman and Wilbarger Counties. (Tex. Coop. Rpt.).

SALT-MARSH CATERPILLAR (Estigmene acrea) - CALIFORNIA - Migrating to cotton in Shafter area, Kern County, from weeds in adjacent barley and safflower fields. Few infestations still present. (Leigh, June 20). NORTH CAROLINA - Causing minor damage locally in Edgecombe County. (Powell).

STALK BORER (Papaipema nebris) - TENNESSEE - Occasional cotton plant found infested in Hardin and McNairy Counties. (Locke).

LYGUS BUGS (Lygus spp.) - CALIFORNIA - Evident in many fields and counts in Kern and Fresno County areas generally range 1-5 adults per 50 sweeps. Nymphs evident in few cases. Close observation urged. Harvest of certain crops such as alfalfa hay, safflower and potatoes causing some migration. (Leigh, June 20). Some areas along east side of Tulare County experiencing migrations of treatment level. Most fields now squaring. Prolonged wet spring delayed migrations from foothills until cotton is fruiting. Careful checks urged. (George, June 20). ARIZONA - Increasing on cotton in all sections. (Ariz. Coop. Sur.). NEW MEXICO - Populations remain relatively light in cotton throughout State. (N. M. Coop. Rpt.).

TARNISHED PLANT BUG (Lygus lineolaris) - LOUISIANA - Counts generally low in Tallulah area; as high as 10 per 100 sweeps found in only few fields. (Smith et al.). MISSISSIPPI - Light to medium in delta counties, and in Calhoun, Madison, Marshall, Montgomery and Quitman Counties; controls applied. (Ouzts). In

delta counties, ranged 1-5 (averaged 1.8) per 100 sweeps in 13 of 37 fields checked. (Pfrimmer et al.)

COTTON FLEAFHOPPER (Psallus seriatus) - ARIZONA - Increasing on cotton in all sections. (Ariz. Coop. Sur.). TEXAS - Still serious in areas where cotton squaring heavily; controls being applied. (Tex. Coop. Rpt.). LOUISIANA - Counts generally low in Tallulah area. (Smith et al.). ALABAMA - No increase apparent. (McQueen et al.).

A BLACK FLEAHOPPER (Spanogonicus albofasciatus) - NEW MEXICO - Averaged up to 20 adults per 100 sweeps in cotton in southern Dona Ana County prior to treatment. (N. M. Coop. Rpt.). ARIZONA - Increasing in all sections on cotton. (Ariz. Coop. Sur.).

APHIDS - NORTH CAROLINA - Problems reported in Coastal Plain area. (Cott. News Ltr., June 20). CALIFORNIA - Aphis craccivora continues severe in portions of some fields in Shafter area, Kern County; controls necessary. Severe stunting evident where infestations persistent. Rapid growth evident following control. (Leigh, June 20).

LEAFHOPPERS - MISSISSIPPI - Various species medium on cotton in Montgomery County. (Ouzts).

THRIPS - CALIFORNIA - Moderately present in all fields of untreated cotton in Riverside County. (Eskafi, June 20). NEW MEXICO - Moderately heavy populations damaging cotton foliage in Portales area, Roosevelt County. Populations generally light in southern counties. (N. M. Coop. Rpt.). TEXAS - Causing spotted damage to cotton in northwest, but most cotton in other areas large enough to escape further damage. (Tex. Coop. Rpt.).

A SERPENTINE LEAF MINER - OKLAHOMA - Infestations caused considerable concern as from 1-5 miners present in leaves of cotton in Choctaw County. (Okla. Coop. Sur.).

SPIDER MITES - NORTH CAROLINA - Appearing earlier than usual; spotted in dangerous proportions in Nash, Halifax and Lincoln Counties. (Cott. News Ltr., June 20). ALABAMA - Tetranychus cinnabarinus heavy locally in Monroe County; mites further north in State mixed species including T. atlantius and T. schoenei. (Canerday, McQueen et al.). MISSISSIPPI - Tetranychus spp. light in Calhoun and Prentiss Counties. (Ouzts). ARIZONA - Tetranychus spp. continue a problem in many cotton fields. (Ariz. Coop. Sur.). CALIFORNIA - Evident in most fields in Shafter area of Kern County; Tetranychus atlanticus dominant with some T. telarius and T. pacificus also present. (Leigh, June 20; Black, June 21). T. atlanticus low to moderate in Riverside County with some fields requiring treatment. (Eskafi, June 20). Controls effective in Tulare County; populations moving into new growth in some fields recently irrigated. (George, June 20).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

PINE BARK BEETLES - MISSISSIPPI - Light to heavy, isolated infestations of Ips spp. occurring on pines in Choctaw and Forrest Counties. (Ouzts). ALABAMA - Dendroctonus frontalis and D. terebrans damaged pine in Mobile County during drought; trees now dying in spots following heavy rains. (Wallace, Seibels). VIRGINIA - Continuing epidemic of D. frontalis did not materialize; in most instances, majority died prior to emergence. Ips spp. commonly found in association with new attacks in 1962 D. frontalis infested areas. Salvage value realized from pulpwood and timber (beetle-killed trees only) from D. frontalis epidemic in 1962 on Cumberland, Buckingham-Appomattox and Prince Edward State Forests totaled 17,000 and 1,200 and 1,575 dollars, respectively. Single new spot in loblolly pine in King William County killed by D. frontalis; overwintering beetles noted in several Virginia and shortleaf pines in Prince Edward County and 2 tracts in Cumberland County; suspected activity in these hosts in Fairfax and Fauquier Counties involving several small spots; new activity also noted in Fluvanna County; continues evident on Eastern Shore although no alarming increase in activity evident. Dendroctonus spp. killed scattered loblolly pine on 3 tracts of 1-20 acres in Brunswick County. (For. Pest Sur. Rpt., May).

WHITE-PINE WEEVIL (Pissodes strobi) - MINNESOTA - Very low populations causing some leader damage in plantation south of Biwabik, St. Louis County. (Minn. Ins. Rpt.). WISCONSIN - Larvae nearly full grown and damage conspicuous in Sauk County June 25; many weeviled leaders opened by birds. (Wis. Ins. Sur.). NEW YORK - Damage appears to be considerably less in central area this season. (N. Y. Wkly. Rpt., June 24).

A PINE WEEVIL (Pissodes approximatus) - OHIO - Damaged Scotch and Austrian pines at Granville, Licking County, central area; 50 percent pupae June 21. (Walker). PENNSYLVANIA - Pupation 75 percent in Scotch pine stumps in Jefferson County. (Adams, June 21).

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - OKLAHOMA - Populations heavy in Stillwater area, Payne County, with 50-75 percent of terminals infested. (Okla. Coop. Sur.). ARKANSAS - Full-grown larvae and pupae of second generation observed in Conway County. (Ark. Ins. Sur.). VIRGINIA - Damage noted on loblolly pine in Henrico County; remains prevalent throughout Portsmouth district. (For. Pest Sur. Rpt., May).

JACK-PINE BUDWORM (Choristoneura pinus) - MINNESOTA - High numbers of middle and late larval stages present in Camp Riley Reservation and Foot Hills State Forest. (Minn. Ins. Rpt., June 21). Pupating in north central area; late stages still feeding. (Minn. Ins. Rpt.). WISCONSIN - Pupae found in Polk County June 20; defoliation light. Populations light in Marinette County; larvae three-sixteens to half inch long June 14. (Wis. Ins. Sur.).

ZIMMERMAN PINE MOTH (Dioryctria zimmermani) - MINNESOTA - Causing some damage to pine terminals in Sturgeon Lake area, Pine County. (Minn. Ins. Rpt.).

LARCH CASEBEARER (Coleophora laricella) - MINNESOTA - Causing serious defoliation of tamarack in northeast Aitkin and southwest St. Louis Counties; infestation spread slightly from that of 1962. (Minn. Ins. Rpt., June 21).

SPITTLEBUGS (Aphrophora spp.) - MICHIGAN - A. saratogensis heavy in Huron National Forest, in Alcona County; 5,500 acres to be treated during second week of July. (Millers). A. parallela heavy on jack pine in Oscoda County; light in Lake and Kalkaska Counties. (Millers, Brown). WISCONSIN - Highest populations of A. parallela observed in recent years reported in Sterling, Polk County, June 20; 10-20 last-stage nymphs per twig found on natural and planted jack pine. Adults observed in Dane County. A. saratogensis light to moderate on few scattered plantings in Vilas County; higher numbers found in some Marinette County plantations with some controls anticipated. Most nymphs in

northeast counties in third stage; small proportion in fourth and fifth stages. (Wis. Ins. Sur.). MINNESOTA - High counts of A. parallela found in Crow Wing, Cass and Hubbard Counties; still in nymphal stage and in spittle masses on jack pine. (Minn. Ins. Rpt., June 21).

PINE BARK APHID (Pineus strobi) - MINNESOTA - Generally distributed in midcentral and north central areas; heavy in Grand Rapids area, Itasca County. (Minn. Ins. Rpt., June 21).

CONIFER SAWFLIES - WASHINGTON - Neodiprion sp. causing extensive damage to native ponderosa pine stands in Amber Lake-Cheney area, Spokane County. (Harwood, James). MINNESOTA - Early stage Diprion similis larvae present, with some adults still laying eggs; principal infestations in Cass and Crow Wing Counties. White pine preferred host, but much damage has occurred on jack pine in area. (Minn. Ins. Rpt., June 21). First to fourth-stage D. similis larvae generally distributed; first-generation numbers generally low. Larvae of Neodiprion pratti banksianae beginning to cocoon; late instars still defoliating in southern St. Louis, northern Pine and Cass Counties. N. lecontei adults ovipositing in Aitkin and Pine Counties; larvae should appear in 10-14 days. (Minn. Ins. Rpt.). NEW YORK - Neodiprion sertifer larvae completed feeding on Scotch pine Christmas-tree plantation near Utica, Oneida County. (N. Y. Wkly. Rpt., June 24). VIRGINIA - Neodiprion pratti pratti noted throughout Brunswick County and scattered spots in Dinwiddie County on loblolly and shortleaf pines; increasing slightly in Louisa and Fluvanna Counties; remained low in Spotsylvania, Orange, Fauquier and Culpeper Counties; activity light throughout Charlotte County and defoliation less than in 1962 in Tappahannock district. Unspecified species caused defoliation of loblolly pine on 15-acre stand in Powhatan County and active on Virginia and loblolly pines on scattered areas in King William County. (For. Pest Sur. Rpt., May).

LARCH SAWFLY (Pristiphora erichsonii) - MINNESOTA - Early stage larvae causing some damage to tamarack in northeastern area. (Minn. Ins. Rpt.).

ELM LEAF BEETLE (Galerucella xanthomelaena) - ARIZONA - Injuring elms in Maricopa, Pinal and Apache Counties; controls needed. (Ariz. Coop. Sur.). NEVADA - Adults and larvae caused heavy damage to elms in Smith and Mason Valleys, Lyon County. (Cooney). Damage to elms in Caliente, Lincoln County, much heavier than in 1962. (Bechtel, Martinelli, Zoller). IDAHO - Adults, eggs and first and second stage larvae present in Parma area, Canyon County; larvae range up to 8 per leaf on unsprayed foliage. (Scott). COLORADO - Defoliating elm in western Montrose County. (Hantsbarger). OKLAHOMA - Third-generation larvae feeding in Stillwater area, Payne County. Severe defoliation occurring in localized portions of south central area of State. (Okla. Coop. Sur.). ALABAMA - Larval feeding heavy on elms, with adults appearing in large numbers. An estimated 90 percent of leaves on many untreated elms affected; approximately same conditions exist in Lee and several other central area counties. (Smith et al.). MARYLAND - Injuring Chinese elms in Anne Arundel and Prince Georges Counties. (U. Md., Ent. Dept.). VERMONT - Appearing in Chittenden and Addison Counties. (MacCollom, June 24).

LEAF BEETLES - NORTH DAKOTA - Large numbers of Chrysomela crotchii continue to appear on willow and poplar, in grain fields, and around homes. (N. D. Ins. Sur.). MICHIGAN - Plagioderma versicolora larvae infesting willow windbreaks in Clinton County muck fields; dropped to soybeans prior to pupation causing concern to farmers, but no damage. (Janes). ARKANSAS - Xenochalepus dorsalis heavy on locust in Faulkner County. (Ark. Ins. Sur.). ALABAMA - Heavy, isolated infestations of Chrysomela scripta complex noted on willows in Mobile County. (Bolton, Seibels).

BARK BEETLES - WISCONSIN - Numerous active cases of Dutch elm disease observed in Rock and Green Counties; most severely affected trees in Rock, Sugar and Avon River bottoms. (Wis. Ins. Sur.).

FALL WEBWORM (Hyphantria cunea) - OKLAHOMA - Webbing and defoliation extensive on variety of trees in Bryan and Marshall Counties. (Okla. Coop. Sur.).
DELAWARE - First larvae of season found in a Kent County area. (Bray).

CANKERWORMS - MICHIGAN - Paleacrita vernata and Alsophila pometaria larvae caused widespread damage to birch, oak, elm, wild cherry, apple and poplar in Emmet, Charlevoix and Otsego Counties. (Festerling, Pangborn, Durren).

PECAN NUT CASEBEARER (Acrobasis caryae) - OKLAHOMA - Infestations of 20-30 percent reported in Bryan County; continues active in Okfuskee County area. (Okla. Coop. Sur.).

CATALPA SPHINX (Cerotomia catalpae) - WISCONSIN - Relatively high numbers of second-stage larvae feeding on catalpas in a southern area of Grant County. (Wis. Ins. Sur.). OHIO - Small larvae light on catalpas near Hillsboro, Highland County, southwest; few leaves 20-25 percent skeletonized; occasionally 18-20 larvae per leaf. (Lyon, Triplehorn).

A LEAF MINER MOTH (Phyllocnistis populiella) - IDAHO - Severe on aspen in Priest River, Bonner County. (Portman).

GYPSY MOTH (Porthetria dispar) - Egg hatch noted as follows: MAINE - Dayton May 8, Brownfield May 10, Skowhegan May 13, Waterville May 14, Dixfield May 15; in NEW HAMPSHIRE - New London and Concord May 10; VERMONT - Bellows Falls May 4, Pownal and Sandgate May 7, Rutland May 11 and Shelborne May 14; NEW YORK - Orleans May 6. Heavy frost in Vermont and New Hampshire did not affect first and second instars. Aerial treatments began in NEW JERSEY May 3, completed May 30. Total of 34 separate blocks treated in Sussex, Morris, Passaic, Bergen and Warren Counties. Aerial treatment began in southern New York May 16 in Westchester and Rockland Counties. Accessible infestations in Nassau and Queens Counties, Long Island, treated with ground equipment. More than two-thirds of 160,000 acres scheduled for treatment in heavily infested areas of eastern New York treated by end of May. Treatment completed in PENNSYLVANIA May 16; involved 8,060 acres in Pike and Monroe Counties. Total of 109,268 acres treated in Franklin, Hampden and Hampshire Counties, MASSACHUSETTS. Nursery and environ treatment of 2,026 acres in CONNECTICUT completed. (PPC, East. Reg.).

MOURNING-CLOAK BUTTERFLY (Nymphalis antiopa) - NEW YORK - Prevalent in some sections about Schenectady where elms, willows and other trees partially defoliated. (N. Y. Wkly. Rpt., June 24).

EUROPEAN ELM SCALE (Gossyparia spuria) - PENNSYLVANIA - Infesting 30-40 foot elms in Lebanon County; severe on some trees. (Wolff). COLORADO - Crawlers active in Yuma County. (Hantsbarger).

COTTONY MAPLE SCALE (Pulvinaria innumerabilis) - INDIANA - Abundant at Fowler, Benton County; many silver maples heavily infested. Controls being applied. (Schuder). IDAHO - Crawlers active in Canyon County. (Bechtolt).

PECAN LEAFROLL MITE (Aceria caryae) - OKLAHOMA - Causing considerable damage to pecan leaves in Stillwater area, Payne County; one-third of leaves curled. (Okla. Coop. Sur.).

A MIDGE (Dasyneura gleditschiae) - IDAHO - First-generation emergence nearly complete in Parma area, Canyon County. Adults numerous around honeylocusts; 5-10 per leaf. (Scott).

BIRCH LEAF MINER (Fenusa pusilla) - NEW YORK - Damage especially severe in Schenectady area, with new growth just appearing. Moderately damaged birch in Broome County; second egg laying underway. (N. Y. Wkly. Rpt., June 24).

A GALL WASP (Callirhytis cornigera) - ALABAMA - Galls heavy on isolated red oaks in Madison County; same situation has occurred for 3 consecutive years. (Magnusson).

JAPANESE BEETLE (Popillia japonica) - NEW YORK - Observed June 18 in Schenectady area. (N. Y. Wkly. Rpt.). RHODE ISLAND - Single adults collected in Kingston, Washington County, and in Warwick, Kent County. (Mathewson, Sorensen). NEW JERSEY - Adults appearing generally on ornamentals. (Ins.-Dis. Newsltr., June 25). MARYLAND - Adult emergence continues at high rate in several Prince Georges County areas; reported troublesome on roses, flowering crab apple and other ornamentals in several counties. (U. Md., Ent. Dept.). VIRGINIA - First adults noted in Charles City and New Kent Counties, June 20 (Settle); active on many ornamentals in Pittsylvania County, first collected June 14 (Dominick); medium on corn and crapemyrtle in Amelia County (Holmes, June 20); large numbers present in Newport News area (Evans, June 26); common on wide variety of plants in King George, Westmoreland, Richmond, Northumberland, Lancaster, Essex, Middlesex, Mathews, Gloucester, King and Queen and King William Counties (Tarpley). NORTH CAROLINA - Damaging grapes, roses and other ornamentals at a Hertford County location. (Wright). OHIO - Two adults observed feeding on roses in Athens, Athens County, southeast; 2 adults found on buckthorn hedge at Wooster, Wayne County, northeast. (Davidson). INDIANA - First adults of season found June 22 in Newton County. (Gould). MICHIGAN - Two adults collected at traps at Battle Creek, Calhoun County, June 24; this is 2 weeks earlier than first collections during other years. (Dowdy). Adult traps being placed in Greater Detroit, Ypsilanti, Lansing, Flint, Grand Rapids, Niles, Battle Creek, rural Monroe County, rural Lenawee County and rural Berrien County. Few traps also being located along major highways near truck-stops and other places where beetles might possibly be found. (Godlewski, Ring).

ROSE CHAFER (Macrodactylus subspinosus) - WISCONSIN - Unusually high numbers and serious injury to ornamentals reported from some parts of Columbia, Shawano, lower Trempealeau, Waushara and Marquette Counties. (Wis. Ins. Sur.). MICHIGAN - Injury heavy in Charlevoix, Emmet and Midland Counties, light to moderate in Kalkaska, Menominee, Grand Traverse and Ottawa Counties. (Rebman, Pangborn, Durren, Grose, Brown, Bowers, Mullet, Machiele). PENNSYLVANIA - Large numbers, probably this species, defoliating oak in Potter County. (Adams). NEW YORK - Adults active and numerous in Putnam, Genesee and Onondaga Counties; quite prevalent on wide variety of plants in Schenectady area. (N. Y. Wkly. Rpt., June 24). RHODE ISLAND - Common statewide on variety of plants. (Mathewson, Buonaiuto). VERMONT - Abundant. (MacCollom, June 24).

BLACK VINE WEEVIL (Brachyrhinus sulcatus) - IDAHO - Adults notched 30-foot row of peonies in a backyard in Orofino, Clearwater County. (Portman). RHODE ISLAND - First adults of season observed at Portsmouth, Newport County. (Cartier).

ARBORVITAE WEEVIL (Phyllobius intrusus) - NEW YORK - Adults active on juniper and white-cedar at Huntington Station, Long Island, June 11 and 19. (N. Y. Wkly. Rpt.). RHODE ISLAND - Adults found on arborvitae in nursery in Middletown, Newport County; this is late record for adults. (Cartier).

A WEEVIL (Ochyromera ligustri) - NORTH CAROLINA - Population peak of large numbers occurring on ligustrum from Davidson to Wake and New Hanover Counties June 24. (Sessions, Wray). See CEIR 12(23):607-608 for other information.

PINE WEBWORM (Tetralopha robustella) - MARYLAND - Infesting Christmas-tree pine seedlings at Woodbine, Howard County. (U. Md., Ent. Dept.).

MIMOSA WEBWORM (Homadaula albizziae) - DELAWARE - First young larvae of season noted on honeylocust in northern Kent County. (MacCreary).

BAGWORM (Thyridopteryx ephemeraeformis) - OKLAHOMA - Continues damaging to evergreens around State. (Okla. Coop. Sur.).

SUNFLOWER MOTH (Homoesoma electellum) - TEXAS - Heavy, localized larval population damaging ornamental sunflowers in Hill County. (Hoermann).

APHIDS - CALIFORNIA - Aphis fabae heavy on Viburnum sp. in Chico, Butte County. Cinara curvipes heavy on deodar cedars in Tracy area of San Joaquin County. Myzocallis ulmifolii and Eriosoma lanigerum heavy on elms in Oroville, Butte County, with M. ulmifolii also heavy on same host in Sacramento, Sacramento County. Chromaphis juglandicola medium on pecan and walnut trees in Sanger, Fresno County. (Cal. Coop. Rpt.). ARIZONA - Unspecified species appearing on arborvitae in Graham, Greenlee and Pima Counties. (Ariz. Coop. Sur.). UTAH - Drepanaphis utahensis and D. granovskyi heavy on bigtooth maple in areas near Mantua, Box Elder County. Euceraphis gillettei sometimes heavy and Calaphis coloradensis moderate on birch in unspecified locations. Eriosoma americanum curled many leaves on elms in northern part of State. (Knowlton, June 24). NORTH DAKOTA - Several additional instances of Chermes sp. on spruce observed in Fargo area, Cass County. (N. D. Ins. Sur.). MINNESOTA - Unspecified species infesting some ornamental crab apple and apple trees in nurseries. (Minn. Ins. Rpt.). NEW JERSEY - Unspecified species plentiful on shrubs, roses and shade trees. (Ins.-Dis. Newsltr., June 25). RHODE ISLAND - Neoprociophilus sp. extremely heavy on maple at Rice City, Kent County. (Mathewson). Miscellaneous species common statewide on shade trees and increasing with hot weather, especially on maple, oak and linden. (Mathewson, Cartier, Buonaiuto).

BOXELDER BUG (Leptocoris trivittatus) - IDAHO - Eggs hatching in Parma, Canyon County. Adults, eggs and first three larval stages present. (Scott, Waters).

LACE BUGS - MARYLAND - Injuring azaleas and Crataegus sp. in sections of Prince Georges County. (U. Md., Ent. Dept.). NEW YORK - Stephanitis pyrioides damaging extensive azalea planting at a Nassau County garden center. (N. Y. Wkly. Rpt., June 24).

COCCIDS - VERMONT - Lecanium sp. infesting yew in Windham County. (MacCollom, June 24). RHODE ISLAND - Lecanium fletcheri eggs hatched on yew in North Kingstown, Washington County. Lepidosaphes yanagicola eggs hatching on euonymus in Middletown, Newport County, June 27; this is first report of hatch date for this species in State. (Cartier). CONNECTICUT - Lecanium sp. a problem on Taxus sp. in Manchester. (Savos). NEW YORK - Various species notably prevalent and damaging to ornamentals throughout State. Lecanium corni still in egg stage on ornamental blueberry at Farmingdale, Long Island, June 10. Lecanium spp. of concern to homeowners in Broome County. (N. Y. Wkly. Rpt., June 24). PENNSYLVANIA - Pseudococcus maritimus medium to heavy on yew nursery stock in Berks County. (Strohecker). MARYLAND - In Prince Georges County, Ceroplastes sp. crawlers appeared June 26 at Lewisdale, and Unaspis euonymi heavy on euonymus at several locations in Cheverly. (U. Md., Ent. Dept.). FLORIDA - Ceroplastes floridensis infesting Raphidophora decursiva at Ocala, Marion County (Graham, June 19). Gymnaspis aechmeae light on 100 Billbergia moreli at Ft. Myers, Lee County. (Shirah, June 19). Pulvinaira psidii severe on Sideroxylon foetidissimum at Miami, Dade County (Brown). Aspidiotus perniciosus infesting Diospyros sp. at Orlando, Orange County (Crews, June 20). OHIO - Chionaspis salicis-nigrae infesting willows at St. Clairsville, Belmont County, east central. (Brown, Holdworth). ARIZONA - Icerya purchasi killed many pittosporum plants in Safford area, Graham County. (Ariz. Coop. Sur.).

CRICKETS - ALABAMA - Apparently Orocharis saltator principal species, on increase on ornamentals in southern Mobile County, following extended rains. Rapid increase in size indicates considerable feeding. (Wallace, Seibels).

EUROPEAN EARWIG (Forficula auricularia) - UTAH - Moderately troublesome about some yards, with some damage to flowering plants, in parts of Cache, Davis, Salt Lake, Utah and Sanpete Counties, and at Kanab, Kane County. (Knowlton, June 24).

A DRYWOOD TERMITE (Cryptotermes cavifrons) - FLORIDA - Heavily infested Sabal palmetto at Shired Island, Dixie County, May 30, 1963. Abundant on stems or trunks of living plants; some so heavily infested that wind breakage of trunks occurred. Det. by L. A. Hetrick. Confirmed by T. E. Snyder. Also collected at Tampa, Hillsborough County, May 6, 1963, by E. P. Burnett. (Fla. Coop. Sur.).

A ROTTENWOOD TERMITE (Zootermopsis angusticollis) - CALIFORNIA - Heavy in oak stumps in Paradise, Butte County. Many yard infestations occurred this season; probably result of early rain at flight time last fall. (Cal. Coop. Rpt.).

NATIVE HOLLY LEAF MINER (Phytomyza ilicicola) - DELAWARE - Development of first larval brood completed in new spring growth. (Burbutis). NEW YORK - Oviposition continued in new growth at Middle Island, Suffolk County, June 12. (N. Y. Wkly. Rpt.).

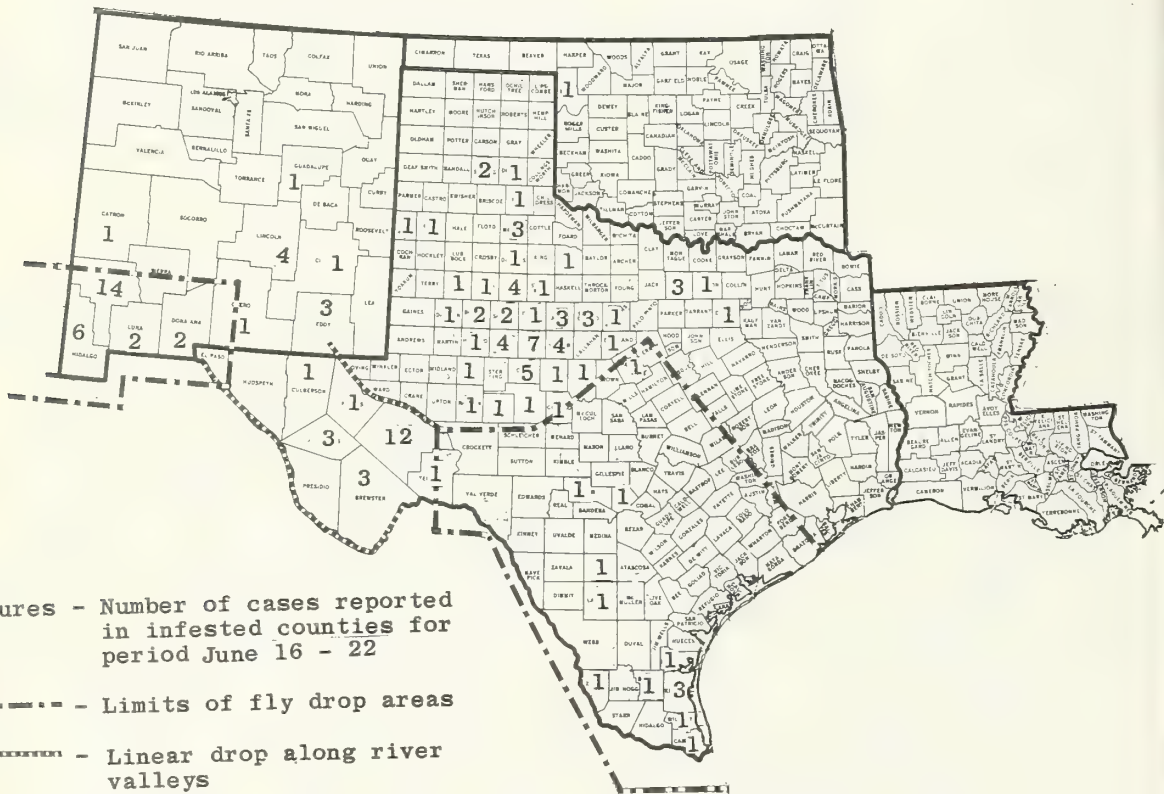
SPIDER MITES - CALIFORNIA - Oligonychus coniferarum heavy on junipers in Sacramento, Sacramento County. (Cal. Coop. Rpt.). MINNESOTA - Tetranychus telarius infesting spruce and arborvitae in Brainerd area, Crow Wing County. (Minn. Ins. Rpt., June 21). Unspecified species building up on many evergreen plantations; as warm weather favors rapid buildup, susceptible stock should be closely watched. (Minn. Ins. Rpt.). CONNECTICUT - Various species injuring many evergreens. (Savos). RHODE ISLAND - Reports and complaints of various species increasing with advent of warm weather. (Mathewson).

INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - NEVADA - Aedes spp. adult numbers heavy in Fallon, Churchill County; Elko, Elko County; and Smith and Mason Valleys, Lyon County. (Bechtel, Cooney, Earnist, Martinelli). UTAH - Continue very numerous from Manti to Moroni and in other localities in Sanpete County; also troublesome in western areas of Millard County. (Knowlton, Funk; June 24). Annoyance severe in Randolph-Woodruff and Bear Lake areas, Rich County; annoyance common in Cache County agricultural fields. (Knowlton). Very abundant and annoying many Box Elder County communities and farm areas (Knowlton, Allred); very troublesome in parts of eastern Millard County (Knowlton, Rickenbach); extremely numerous and troublesome in many parts of Duchesne County (Knowlton, Smith). WYOMING - Several species becoming considerably annoying to man and animals throughout State. (Marks). MINNESOTA - Total of 841 larval collections made June 9-15; Aedes vexans, main pest species, present in 53 percent of collections; 29 percent contained Culex territans, 15 percent Culiseta inornata. Aedes vexans comprised 74 percent of light trap collections and 65 percent of evening bite collections. Remainder of evening bite collections were 11 other Aedes spp. Mansonia perturbans (a vicious biter) appearing in significant numbers in light trap and bite collections. Substantial increase in mosquitoes occurred during past week, as result of rain that occurred on 8 of 10 days. Indications are that population peaked June 19 and is declining. Heavy rains resulted in gradual rise of St. Croix, Minnesota and Mississippi Rivers, inundating adjacent low-lying areas and resulting in almost continuous hatch. During period June 16-22, total of 444 larval samples taken; 196 contained Aedes vexans, 69 Culiseta inornata, 141 Culex restuans, 103 Culex territans. Small numbers of 15 other species also taken. (Minn. Ins. Rpt.). WISCONSIN - High numbers of unspecified species reported in Madison area, Dane County; light trap catches also indicate above normal activity. Aedes vexans comprised approximately 95 percent of species taken in traps. Few reports indicate mosquitoes bothering cattle grazing at night, but situation not acute. (Wis. Ins. Sur.). MISSISSIPPI - Psorophora spp. range medium to heavy in delta area; controls applied. (Ouzts).

STATUS OF THE SCREW-WORM (Cochliomyia hominivorax) IN THE SOUTHWEST

During the period June 16 - 22, a total of 100 infestations, including one of unknown origin, reported from TEXAS, 35 from NEW MEXICO and 1 from OKLAHOMA. Specimens were reported from 52 counties in Texas, 10 counties in New Mexico and 1 county in Oklahoma. Screw-worm was reported for the first time this year from Armstrong, Donley, Hall, Bailey, Lamb, Denton, Dawson, Culberson, Lynn and Shackelford Counties, Texas; Guadalupe County, New Mexico; and Ellis County, Oklahoma. A total of 114,241,850 sterile flies was released during the period June 16 - 22. (Anim. Dis. Erad. Div.).



HORN FLY (Haematobia irritans) - UTAH - Moderate on herds in Millard, Kane and Sanpete Counties. (Knowlton et al.; June 24). Numbers increased in northern area herds. (Knowlton). WYOMING - Causing serious annoyance to livestock in Laramie County. (Marks). SOUTH DAKOTA - Causing some discomfort to cattle in northeast region; ranged 32-75 per side per animal. (Hintz). Ranged 50-100 per head on range cattle in Cottonwood area, Jackson County. (Kantack). NEBRASKA - Ranged 50-100 per animal in Nuckolls County. (Bell, Hauke, Bergman). KANSAS - Ranged 25 to over 300 per animal on cattle in south central and southeast areas. (Peters). OKLAHOMA - Light to moderate generally in south central and southeast; 100-400 per head. Averaged 400 per animal in Stillwater

area, Payne County. (Okla. Coop. Sur.). MISSISSIPPI - Medium to heavy on livestock in Choctaw, Holmes and Lowndes Counties and in delta area. Controls applied. (Ouzts). MICHIGAN - Annoying in many areas. (Campana, Machiele, Bowers, Brown). INDIANA - Populations apparently declining in central area with advent of hot, dry weather. Ranged 25-50 per treated animal. (Dobson). MARYLAND - Ranged 2-20 (average 5) per head on dairy cattle checked in Frederick County. (U. Md., Ent. Dept.).

STABLE FLY (Stomoxys calcitrans) - WISCONSIN - Particularly troublesome in Dodge County; most troublesome fly species in Oconto and Chippewa Counties. (Wis. Ins. Sur.). KANSAS - Ranged 0-40 per animal on cattle in south central and southeast areas. (Peters). OKLAHOMA - Light to moderate in south central and southeast; 3-5 per head. Averaged 3 per animal in Stillwater area, Payne County. (Okla. Coop. Sur.). MISSISSIPPI - Light on livestock in delta area; no controls. (Ouzts). NORTH CAROLINA - Noted as very annoying to group of horses in Lenoir County. (Bruce).

TABANIDS - UTAH - Becoming troublesome in parts of Tooele and Millard Counties. (Knowlton, June 24). Severely annoying in Randolph-Woodruff and Bear Lake areas of Rich County. (Knowlton). WISCONSIN - A problem in areas near woods in Oconto and Chippewa Counties. (Wis. Ins. Sur.). MICHIGAN - Unspecified species annoying in many areas. (Campana, Machiele, Bowers, Brown). OKLAHOMA - Tabanus spp. remain light on animals in southeast. (Okla. Coop. Sur.). MISSISSIPPI - Tabanus spp. medium on livestock in delta area; controls applied. (Ouzts).

FACE FLY (Musca autumnalis) - VERMONT - Prevalent statewide. (MacCollom, June 24). MARYLAND - Increasing slowly; ranged 2-50 per head on dairy cattle in Frederick and Howard Counties. (U. Md., Ent. Dept.). OHIO - Building up rather rapidly; 20-30 per cow observed at Columbus, Franklin County, central area; populations higher on calves. (Holdsworth). INDIANA - Apparently building up in central area; up to 25 per face, with flies resting on other areas of animal when horn fly numerous. Dry weather apparently affecting face fly. (Dobson). ILLINOIS - Varied 0-34 (average 7.2) per face on dairy cattle in Will and Cook Counties. (Ill. Ins. Rpt.). WISCONSIN - Ranged 10-15 per cow in Dodge County. (Wis. Ins. Sur.). MISSOURI - Counts remain about same as previously reported in central and north central areas; averaged 11, 5 and 6.4 per animal on 3 herds in extreme northwest area, with high count of 39 on one animal. (Wingo).

HOUSE FLY (Musca domestica) - VERMONT - Breeding rapidly. (MacCollom, June 24). INDIANA - Building up in poorly cared for barns in central area. (Dobson). OKLAHOMA - Averaged 35 per Scudder grid in Stillwater area, Payne County. (Okla. Coop. Sur.). UTAH - Troublesome about Duchesne and other communities in Duchesne County. (Knowlton, Smith).

CATTLE GRUBS (Hypoderma spp.) - INDIANA - H. lineatum adult activity apparently over in central area; very little gadding noted since June 20; apparently due to dry weather. (Dobson). UTAH - "Heel flies" running cattle in Cache County; especially noticeable week of June 5. Also reported in several other areas of State. (Dorst, Knowlton).

LICE - WISCONSIN - Linognathus sp. and Haematopinus sp. infesting cattle in La Crosse County. (Wis. Ins. Sur.).

BITING MIDGES (Culicoides spp.) - WISCONSIN - Troublesome in Vilas and Sauk Counties. (Wis. Ins. Sur.).

BLACK FLIES - MICHIGAN - Unspecified species annoying in many areas. (Campana, Machiele, Bowers, Brown).

CHIGGERS - SOUTH CAROLINA - Troublesome in Clemson area, June 16. (Nettles et al.). INDIANA - Eutrombicula spp. active in brushy areas; caused considerable problem to householders. (Dobson).

TICKS - MICHIGAN - Abundant in Menominee, Delta and Dickinson Counties. (Bowers, Pangborn). RHODE ISLAND - Dermacentor variabilis adults continue active, but complaints relatively few in number. (Mathewson).

A BROWN SPIDER (Loxosceles reclusa) - OKLAHOMA - Causing considerable concern in Stillwater area, Payne County. (Okla. Coop. Sur.).

HOUSEHOLD AND STRUCTURAL INSECTS

LARDER BEETLE (Dermestes lardarius) - SOUTH DAKOTA - Unusually large number of specimens still being sent in for determination. (Spawn). WISCONSIN - Unusually high numbers present this season in Fond du Lac and Grant Counties. Number of inquiries from scattered areas of State indicate problem is widespread. (Wis. Ins. Sur.). MICHIGAN - Larvae reported from such widespread locations as Alger, Clare and Ingham Counties indicate more general problem than usual. Reported chewing through ceiling insulation. (Campana, Janes). PENNSYLVANIA - Reported from a Potter County home. (Adams).

CARPET BEETLES - CALIFORNIA - Anthrenus verbasci heavy in carpets and throughout house in Heber, Imperial County. Heavy adult numbers on pyracantha common this spring. (Cal. Coop. Rpt.). NORTH CAROLINA - Attagenus piceus heavy in a Wake County home June 12. (Wray).

OLD-HOUSE BORER (Hylotrupes bajulus) - MARYLAND - Adults appeared in buildings June 20 at Whitehaven, Wicomico County, and June 25 at Prince Frederick, Calvert County. (U. Md., Ent. Dept.). PENNSYLVANIA - Infesting floor of gymnasium in school building in McKean County. (Adams, June 21).

CASEMAKING CLOTHES MOTH (Tinea pellionella) - ALABAMA - Complaints received from several homeowners in Mobile County. (Wallace, Seibels).

INDIAN-MEAL MOTH (Plodia interpunctella) - PENNSYLVANIA - More than usual number of inquiries concerning home infestations being received. (Pepper).

CARPENTER ANTS (Camponotus spp.) - CONNECTICUT - Workers and swarms creating problems statewide. (Savos). RHODE ISLAND - Heavy in several buildings on same property in Little Compton, Newport County. (Mathewson). MISSISSIPPI - Light in Neshoba County. Controls applied. (Ouzts). NORTH CAROLINA - C. pennsylvanicus heavy in a Caldwell County home June 17. (Wray).

PAVEMENT ANT (Tetramorium caespitum) - CONNECTICUT - Swarms and workers a problem statewide. (Savos). NEW JERSEY - Swarming and of concern to homeowners. (Isn.-Dis. Newsltr., June 25). MARYLAND - Winged forms and workers appearing in homes and around properties in Baltimore and Prince Georges Counties. (U. Md., Ent. Dept.).

LARGER YELLOW ANT (Acanthomyops interjectus) - NEW JERSEY - Swarming and causing concern to homeowners. (Isn.-Dis. Newsltr. June 25).

CLOVER MITE (Bryobia praetiosa) - CALIFORNIA - Heavy adult numbers occurred on walls of army base hospital in Suisun, Solana County. (Cal. Coop. Rpt.).

MILLIPEDS - NORTH CAROLINA - Oriulus venustus very numerous in a Wake County home; also reported in Piedmont area. Millipeds have been unusually abundant around houses this spring because of wet weather. (Wray).

BENEFICIAL INSECTS

LADY BEETLES - IDAHO - Larvae ranged up to one per sweep in some Canyon County alfalfa; first of season. (Bechtolt). WYOMING - Adults of several species averaged 25 per 100 sweeps in Laramie County alfalfa. (Marks). NEBRASKA - Hippodamia spp. adults ranged 2-5 per 10 sweeps in alfalfa in southern and southwest areas. (Bell, Hauke, Bergman). ALABAMA - Hippodamia convergens and Coleomegilla maculata fuscilabris most numerous predators on citrus graft fields in Mobile County. (Wallace, Seibels).

FIERY HUNTER (Calosoma calidum) - WISCONSIN - Very numerous and flying from tree to tree in a pine tussock moth outbreak area in Douglas County June 23. (Wis. Ins. Sur.).

MELYRID BEETLES (Collops spp.) - CALIFORNIA - Evident on cotton in Tulare County. (George, June 20).

PUNCTUREVINE WEEVILS (Microlarinus spp.) - NEVADA - Adults of M. lareynii and M. lypriformis heavy on puncturevine in Moapa Valley, Clark County. (Bechtel, Martinelli, Zoller).

LACEWINGS - NEBRASKA - Averaged 2 per 10 sweeps in Red Willow County alfalfa. (Bell, Hauke, Bergman). IDAHO - Larvae ranged up to one per sweep in some alfalfa in Canyon County; first of season. (Bechtolt).

DAMSEL BUGS (Nabis spp.) - NEBRASKA - Adults ranged 4-10 per 10 sweeps in southern and southwestern area alfalfa. (Bell, Hauke, Bergman). WYOMING - Adults averaged 22 per 100 sweeps in Laramie County alfalfa. (Marks).

FLOWER BUGS (Orius spp.) - NEBRASKA - Ranged 3-10 per 10 sweeps in south and southwest area alfalfa. (Bell, Hauke, Bergman).

BIG-EYED BUGS (Geocoris spp.) - CALIFORNIA - Increasing numbers being observed on cotton in Tulare County; numerous eggs appearing in mite colonies. (George, June 20).

AN ICHNEUMON (Magarhyssa sp.) - COLORADO - Active around trees infested with hornetails in Elbert County. (Hantsbarger).

MISCELLANEOUS INSECTS

A POWDER-POST BEETLE (Lyctus cavicollis) - CALIFORNIA - Heavy in bamboo furniture in residence in Santa Rosa, Sonoma County. Infestations in household bamboo accessories becoming more frequent. (Cal. Coop. Rpt.).

WHITE-FRINGED BEETLES (Graphognathus spp.) - Small extension found in Wilmington, NORTH CAROLINA; treatments completed in several counties; damage to tobacco reported in several fields in Pender County. Treatment of 20 acres of railroad right-of-way and industrial area in Florence, SOUTH CAROLINA, completed; border treatment applied to infestations in Orangeburg County. Specimens collected for the first time in Stewart and Evans Counties, GEORGIA. Larval surveys in northern FLORIDA counties revealed number of small infestations near known infested properties. Damaged field peas in Covington County, cotton in Conecuh County, corn and strawberries in Baldwin County, ALABAMA. Treatment completed at Paris, Henry County, TENNESSEE. Specimens collected for first time in Poinsett County, ARKANSAS. (PPC, South. Reg., May Rpt.). Soil treatment of 2,149 acres completed in City of Norfolk, VIRGINIA, May 14. (PPC, East. Reg.).

JAPANESE BEETLE (Popillia japonica) - Milky spore dust applied to 250 acres in Ashe County, NORTH CAROLINA; treatment of additional 250 acres planned. (PPC, South. Reg., May Rpt.). Traps placed in Clay, Crawford, Du Page, Henry, Jefferson, Kane, Kankakee, McHenry, Richland, Wayne and White Counties, ILLINOIS. Traps set in Atchison, Doniphan, Johnson, Leavenworth and Wyandotte Counties, KANSAS. Traps set in number of railroad yards and airports in Martin, Watonwan and Brown Counties, MINNESOTA. (PPC, Cent. Reg., May Rpt.). Residual soil treatment of 3,000 acres at Otis Air Force Base, MASSACHUSETTS, completed. (PPC, East. Reg., May Rpt.).

EUROPEAN CHAFER (Amphimallon majalis) - Trapping begun in MARYLAND-DELAWARE area and along the PENNSYLVANIA Turnpike interchanges; both chemical and blacklight traps in use. (PPC, East. Reg., May Rpt.).

ASIATIC GARDEN BEETLE (Autoserica castanea) - DELAWARE - Adults common in blacklight trap in Sussex County. (Brubutis).

A SCARAB (Serica sp., probably fimbriata) - CALIFORNIA - Medium in Westminster area, Orange County; attracted to Japanese beetle lure. (Cal. Coop. Rpt.).

TILE-HORNED PRIONUS (Prionus imbricornis) - ALABAMA - Few adults caught at lights in Lee County. (McQueen).

A WEEVIL (Phyllobius oblongus) - PENNSYLVANIA - Light numbers collected from heads of wheat and barley in Mercer County. This is only second record for State. Det. by Negley. (Adams).

A TENEBRIONID BEETLE (Cynaesus angustus) - OHIO - Adults taken in blacklight trap at Hoytville, Wood County, northwest, for new county record. (Catterheinrich, Triplehorn).

A FALSE CHINCH BUG (Nysius raphanus) - CALIFORNIA - Populations extremely heavy this season. Large numbers have occurred in Rancho Cordova area, Sacramento County, with numerous complaints of residents being bitten. Heavy invasions of residential areas occurring in other localities where house and yard populations create considerable nuisance. (Cal. Coop. Rpt.).

A LONGHORN GRASSHOPPER (Rehnia spinosa) - TEXAS - Two specimens collected in pear tree in San Saba County. (Newton, Kidd).

EUROPEAN EARWIG (Forficula auricularia) - RHODE ISLAND - Present generally, but population appears relatively low to June 28. (Mathewson).

IMPORTED FIRE ANT (Solenopsis saevissima richteri) - Collected for the first time in Colorado County, TEXAS, during May. Treatment completed in all known infestations in Brazoria and Montgomery Counties and treatment of highway rights-of-way in Jasper County; limited survey in Bexar County, negative. Surveys in 11 LOUISIANA parishes show extensions of infestations. Aerial treatment completed in Adams, Lee and Washington Counties, MISSISSIPPI, and in Morgan-Limestone County area, ALABAMA. Damage to young corn reported in Meriwether County, GEORGIA; Baldwin County reported infested for the first time. Treatment applied along pulpwood and logging roads in Charleston area, SOUTH CAROLINA; spot treatments made in city of Columbia. Treatments applied to the Camp LeJeune Marine Corps Base and city of Fayetteville, NORTH CAROLINA. Negative surveys made in 31 counties in TENNESSEE. (PPC, South. Reg., May Rpt.).

LIGHT TRAP COLLECTIONS

	Pseud. unip.	Agrot. ips.	Perid. saucia	Prod. ornith.	Ostrin. nubil.	Protoparce sexta	Heliothis zea	quinq. vires.
ARKANSAS								
Hope 6/20-26							29	
Morrilton 6/20-26	13	6	46				23	4
Kelso 6/20-26			1				2	
Fayetteville 6/20-26			3				28	
FLORIDA								
Gainesville 6/24				2			1	
ILLINOIS (County)								
Champaign 6/21-27	212	10	221			1		
INDIANA (Counties)								
La Porte 6/19-23	11	2	9	9			1	
Lawrence 6/18-20	19	9	37	3			1	
Tippecanoe 6/20-27	231	14	39	1				
Vanderburgh 6/19-26	13	1	15	2		1		1
Jasper 6/19-26	86	1	17	1	16			
KANSAS								
Garden City 6/19,21,24	29	12	13	23				7
Hays 6/21,24	3	3	2	2				
Manhattan 6/22-28	73	13	115	41	1			3
Wathena 6/19,21,23,25	12	2	28	8	2			1
MARYLAND								
Centreville 6/19-25	37	32	17		7	4		
MICHIGAN (Counties)								
Monroe 6/18-24	2	4						
Washtenaw 6/18-24	1							
*McComb 6/18-24	4		2					
*Livingston 6/18-24	6	2	3					
Kent 6/18-24	7		9					
Wayne 6/18-24		2						
MISSISSIPPI								
*Stoneville 6/21-27	19	9	3	51		17	55	3
NEBRASKA								
Kearney 6/10-15	9	40	23		222	1	2	33
Lincoln 6/20-26	975	97	213	24	15		4	
Ogallala 6/7-14	21	11	21				1	1
NEW JERSEY (Counties)								
Cumberland 6/5,9,12, 17, 24	39			1	12	1	1	
Burlington 6/5,9,17, 20, 24	18			1	8			
NORTH DAKOTA								
Fargo 6/22-28	14		2		1			
Emrick 6/22-28	4	2						
Trotters 6/22-28	1		1					

* Two traps - McComb, Linvingston, Stoneville.

(continued on page 772).

Light Trap Collections (Continued)

	Pseud. unip.	Agrot. ips.	Perid. saucia	Prod. ornith.	Ostrin. nubil.	Protoparce sexta	Heliothis zea	vires.
OHIO								
Wooster 6/21-27	35	25			20			
Ripley 6/21-27	3							
Marietta 6/21-27		4				2		
Hoytville 6/21-27	1				5			
Columbus 6/21-27		1						
Toledo 6/21-27		1						
SOUTH CAROLINA								
Clemson 6/15-21	1	1	3	53			5	
Clemson 6/22-28	2	4	5	106			3	1
Charleston 6/24-30		1		27		4	1	1
SOUTH DAKOTA (County)								
Brookings 6/27	13		26					
TEXAS								
Waco 6/22-28	133	186	99	174			1,917	31
*Brownsville 6/22-26		64	180	200			117 7,136	54
WISCONSIN								
Janesville 6/18-24	122				12			
Platteville 6/18-24	41	3	5		14			
Mazomanie 6/19-24	14	11	4		24			
Middleton 6/20-25	6	6	1		2			
Madison 6/20-25	19	8	4		1			
De Forest 6/18-24	9	1	3		4			
Arlington 6/18-24	44				15			
Fox Lake 6/18-24	52				14			
Beaver Dam 6/18-24	23							
Astico 6/18-24	8				8			
Wayne 6/18-24	11							
Theresa 6/18-24	30				16			
Nenno 6/18-24	8				5			
Waldo 6/18-24	11	5			1			
WYOMING								
Centennial 6/6-10			1					

Additional Light Trap Collections

TEXAS - Trichoplusia ni - (Waco, 6/22-28) - 5,330; (*Brownsville, 6/22-26) - 30,582; Pectinophora gossypiella - (Waco, 6/22-28) - 4; (*Brownsville, 6/22-26) - 267.

* Six traps - Brownsville.

HAWAIIAN INSECT NOTES

The following notes on Hawaii insect conditions were presented at the 690th meeting of the Hawaiian Entomological Society held on June 10, 1963.

An unidentified FLAT BUG (Aradidae) was discovered by Donald Oatley, a general entomology student, in May 1963. This bug was somewhat abundant, feeding on fungus under loose bark of trees above Fort Shafter, Oahu. Specimens have been sent to U. S. National Museum for identification. This is the first record of this family in Hawaii. (B. D. Perkins).

A general entomology student collected an adult of a predaceous CARABID (Tefflus zanzibericus alluaudi) in the Kaneohe area, Oahu, recently. This carabid was introduced in 1952, 1953, 1957 and 1959 to control a giant African snail (Achatina fulica). This is the third recovery and the first in 2 years from this area, indicating that this carabid may have become established. (D. E. Hardy).

Young shoots of a navel orange showing severe damage by feedings of SOUTHERN GREEN STINK BUG (Nezara viridula var. smaragdula) were exhibited. In general, the feeding of 2 pairs of adults produced complete collapsing of the shoots between 24 and 48 hours. There was no recovery. (C. J. Davis).

Weather of the week ending July 1 (continued from page 740)

The eastward movement of a front that extended from North Dakota to New Mexico set off moderate to heavy showers in North Dakota, Minnesota and Wisconsin. Light rains also fell over the Pacific Northwest. Hot sunny weather prevailed over the Southwest, with afternoon temperatures approaching or exceeding 100° daily. By midweek, the high pressure area had moved slowly southeastward to a position off the coast of South Carolina and Florida. A slowly moving cold front stretched from the middle Plains to New England. Hot humid air moved across the South Central States to New England, bringing 90° temperatures as far north as Burlington, Vermont. Thursday afternoon, the temperature shot to 97° at Philadelphia, Pennsylvania, and 95° or higher over the central Plains, the southern Rockies, and southwestern deserts. Albuquerque, New Mexico, registered 99°; Goodland, Kansas, and North Platte, Nebraska, 101°. A few heavy thundershowers occurred along the front which became almost stationary. Near the weekend, cooler weather moved inland across the Pacific Northwest. The Northeast also cooled. By daytime, heating sent the mercury to the upper 90's over the Plains and Prairies. Pierre, South Dakota, registered a sizzling 108° on Saturday afternoon, and Marquette, Michigan, registered 101° Sunday, equaling the previous June record-high temperature. As July began, the hot humid weather continued over most of the eastern half of the Nation, but more pleasant temperatures prevailed over the Rockies and Pacific Northwest. No rain, or only light showers, fell during the week over most of the Nation from the Pacific Ocean to the High Plains. Some exceptions were the extreme Northwest and a few isolated spots in the central Plains. Rainfall was also light in the Ohio River Valley and northward to Canada. Precipitation totals exceeded 4 inches at a few stations near the Gulf Coast between Corpus Christi and Houston, Texas, at Jacksonville and Orlando, Florida, and at a few stations in southeastern Georgia. Torrential rains, with amounts of 5 to 7 inches, hit the Athens, Georgia, area late Wednesday, causing flash flooding and extensive damage to roads and buildings. Temperatures averaged below normal over central and southern Texas and eastward to the Carolinas; also from the Pacific eastward to Montana, Wyoming, Utah and Arizona. They averaged above normal over New Mexico, Colorado, Nebraska, the Dakotas, and eastward to the Atlantic Ocean. Temperature departures ranged from -9° at Salem, Oregon, and Red Bluff, California, to +11° at Goodland, Kansas, International Falls, Minnesota, and Marquette, Michigan. (Summary supplied by U.S. Weather Bureau).

FIELD METHOD FOR SEPARATING THE CEREAL LEAF BEETLE, Oulema melanopa (L.),
FROM SIMILAR-APPEARING SPECIES OF LEMA IN THE UNITED STATES

Prepared by

Darol L. Kaufmann 1/

The cereal leaf beetle, Oulema melanopa (L.), is presently known to occur in several counties in southwestern Michigan, northern Indiana and northwestern Ohio. Its economic importance and the danger of its dispersal made apparent the need of a field method for distinguishing it from similar-appearing species in the genus Lema known to occur in the United States.

Oulema melanopa (L.):

Sternites of abdomen dark or metallic blue;
legs with some reddish areas.

U. S. Species of Lema superficially resembling
O. melanopa:

<u>L. longipennis</u> Linnell	Sternites and legs dark or metallic blue.
<u>L. collaris</u> Say	Sternites and legs dark or metallic blue.
<u>L. brunnicollis</u> Lac.	Sternites and legs dark or metallic blue.
<u>L. texana</u> Cr.*	Sternites reddish.
<u>L. cornuta</u> F.*	Sternites reddish.
<u>L. simulans</u> Schffr.*	Sternites reddish.
<u>L. sayi</u> Cr.*	Sternites reddish.

*Leg color not needed to distinguish from
O. melanopa.

1/ Graduate Research Assistant, Department of Entomology, Kansas
State University, Manhattan, Kansas

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